



District of Columbia  
HIV/AIDS, Hepatitis, STD, and TB (HAHSTA)

# Annual Report 2010



GOVERNMENT OF THE DISTRICT OF COLUMBIA





## Table of Contents

<b>Table of Contents.....</b>	<b>i</b>
<b>Executive Summary .....</b>	<b>viii</b>
<b>Section I. Understanding HIV/AIDS Surveillance Data .....</b>	<b>1</b>
<i>Transition to Name Based Reporting .....</i>	<i>1</i>
<b>Section II. Overview of HIV/AIDS in the District of Columbia.....</b>	<b>2</b>
<i>Summary.....</i>	<i>2</i>
<i>Detailed Description .....</i>	<i>3</i>
Figure 1. HIV/AIDS Cases, Deaths, and Prevalence, District of Columbia, 2005-2009.....	3
Figure 2. Proportion of Adults and Adolescents Diagnosed and Living with HIV/AIDS by Current Age, District of Columbia, 2009 .....	4
Figure 3. Proportion of Adults and Adolescents Diagnosed and Living with HIV/AIDS by Race/Ethnicity, District of Columbia, 2009 .....	4
Figure 4. Proportion of Adults and Adolescents Diagnosed and Living with HIV/AIDS by Race/Ethnicity and Sex, District of Columbia, 2009 .....	5
Table 1. Living HIV/AIDS Cases and Rates among Adults and Adolescents by Sex, Race/Ethnicity, and Current Age, District of Columbia, 2009 .....	6
Table 2. Living HIV/AIDS Cases among Adults and Adolescents by Race/Ethnicity and Mode of Transmission, District of Columbia, 2009.....	7
Table 3. Living HIV/AIDS Cases among Adults and Adolescents, by Race/Ethnicity, Age at Diagnosis and Current Age, District of Columbia, 2009 .....	8
Table 4. Newly Diagnosed HIV/AIDS Cases by Sex, Race/Ethnicity, Mode of Transmission, and Age, District of Columbia, 2005-2009 .....	9
Figure 5. Newly Diagnosed HIV/AIDS Cases by Year of Diagnosis and Mode of Transmission, District of Columbia, 2005-2009 .....	10
Figure 6. Newly Diagnosed HIV/AIDS Cases by Year of Diagnosis and Race/Ethnicity, District of Columbia, 2005-2009 .....	11
Figure 7. Newly Diagnosed HIV/AIDS Cases by Year of Diagnosis and Sex, District of Columbia, 2005-2009 .....	12
<b>Section III. AIDS Trends in the District of Columbia .....</b>	<b>13</b>
<i>Summary.....</i>	<i>13</i>
Figure 8. AIDS Cases, Deaths, and Prevalence, District of Columbia, 1980-2009 .....	14
<i>New AIDS Diagnoses in the District .....</i>	<i>15</i>
Figure 9. Number of Newly Diagnosed AIDS Cases by Sex, District of Columbia, 2005-2009.....	15
Table 5. Newly Reported AIDS Cases among Adults and Adolescents by Year of Diagnosis, Sex, Race/Ethnicity, Age, and Mode of Transmission, District of Columbia, 2005-2009 .....	15

Table 6. Newly Reported AIDS Cases among Adults and Adolescents by Sex, Race/Ethnicity, Mode of Transmission, and Age at Diagnosis, District of Columbia, 2005-2009.....	17
<i>Persons Living with AIDS in the District .....</i>	<i>18</i>
Table 7. Adults and Adolescents Living with AIDS by Sex, Race/Ethnicity, and Mode of Transmission, District of Columbia, 2009 .....	18
Table 8. Adults and Adolescents Living with AIDS by Race/Ethnicity, Age at Diagnosis and Current Age, District of Columbia, 2009 .....	19
Figure 10. Proportion of Newly Reported AIDS Cases by Age of Diagnosis and Persons Living with AIDS by Age at Diagnosis and Current Age in the District of Columbia, 2009.....	19
<b>Section IV. HIV Disease Status, Survival, and Mortality .....</b>	<b>21</b>
<i>Summary.....</i>	<i>21</i>
<i>Detailed Description of HIV Disease Status, Survival, and Mortality.....</i>	<i>21</i>
Figure 11. Time Between HIV Initial Diagnosis and Entry into Care as Evidenced by First CD4 Count, Percentage or Viral Load Test among HIV/AIDS Cases by Year of HIV Diagnosis, District of Columbia, 2005-2009 .....	22
Figure 12. Median CD4 Cell Count for HIV/AIDS Cases by Year of HIV Diagnosis, District of Columbia, 2005-2009 .....	23
<i>Late Testers.....</i>	<i>23</i>
Table 9. Characteristics of Late Testers among Newly Diagnosed AIDS Cases, District of Columbia, 2005-2009 .....	24
Figure 13. Persons Newly Diagnosed with AIDS and Proportion of Late Testers by Year of AIDS Diagnosis, District of Columbia, 2004-2008.....	25
<i>HIV Disease Progression .....</i>	<i>25</i>
Table 10. Progression from HIV to AIDS after a Diagnosis of HIV, by Selected Characteristics, District of Columbia, 2004-2008 .....	26
Figure 14. Progression from HIV to AIDS after a Diagnosis of HIV, by Selected Characteristics, District of Columbia, 2004-2008 .....	27
<i>AIDS Survival and Mortality.....</i>	<i>27</i>
Table 11. HIV/AIDS Deaths Among Adults and Adolescents, by Year of Death, Sex, Race/Ethnicity, Mode of Transmission, and Age at Death, District of Columbia, 2005-2008 .....	28
Table 12. HIV/AIDS Deaths among Adults and Adolescents, by Race/Ethnicity, Sex, Mode of Transmission, and Age at Death, District of Columbia, 2005-2008 .....	29
Table 13. Cause of Death among Adults and Adolescents with HIV/AIDS, by Year of Death, District of Columbia, 2005-2008 .....	29
Figure 15. Proportion of Persons Surviving, by Years after AIDS Diagnosis and Race/Ethnicity, District of Columbia, 1999-2008 .....	30
Figure 16. Proportion of Persons Surviving by Months after AIDS Diagnosis, District of Columbia, 1999-2008 .....	31

<b>Section V. Pediatric Cases .....</b>	<b>32</b>
<i>Summary.....</i>	<i>32</i>
<i>Trends in Pediatric Cases.....</i>	<i>32</i>
Table 14. Cumulative Pediatric HIV/AIDS Cases by Mode of Transmission, Sex and Race/Ethnicity, District of Columbia, 1983-2009 .....	32
Table 15. Living Pediatric HIV/AIDS Cases by Mode of Transmission, Sex, Race/Ethnicity, Age at Diagnosis and Current Age, District of Columbia, 2009 .....	33
Figure 17. Pediatric HIV/AIDS Cases by Year of Diagnosis, District of Columbia, 1999-2009 .....	34
Figure 18. Perinatal HIV/AIDS Infections by Year of Birth, District of Columbia, 1999-2009 .....	34
Figure 19. Proportion of Perinatally Acquired HIV/AIDS Cases by Maternal Mode of Transmission, District of Columbia, 2009 .....	35
<b>Section VI. Sexually Transmitted Diseases .....</b>	<b>36</b>
<i>Reported Cases of Chlamydia and Gonorrhea in the District of Columbia .....</i>	<i>37</i>
Figure 20. Reported Cases of Chlamydia and Gonorrhea by Year of Diagnosis, District of Columbia, 2005-2009 .....	37
Figure 21. Reported Chlamydia and Gonorrhea Cases by Sex, District of Columbia, 2005-2009 .....	38
Figure 22. Reported Chlamydia and Gonorrhea Cases by Age of Diagnosis, District of Columbia, 2005-2009 .....	38
Figure 23. Reported Chlamydia and Gonorrhea Cases by Race and Ethnicity, District of Columbia, 2005-2009 .....	39
Table 16. Number and Percentage of Chlamydia Cases by Year of Diagnosis, Sex, Race, Ethnicity, Age at Diagnosis, and Ward Number, District of Columbia, 2005-2009 .....	40
Figure 24. Trends in the Number of Reported Chlamydia Cases by Year of Diagnosis and Sex, District of Columbia, 2005-2009 .....	41
Table 17. Number and Percentage of Gonorrhea Cases by Year of Diagnosis, Sex, Race, Ethnicity, Age at Diagnosis, and Ward, District of Columbia, 2005-2009 .....	42
Figure 25. Trends in the Number of Reported Gonorrhea Cases by Year of Diagnosis and Sex, District of Columbia, 2005-2009 .....	43
Figure 26. Rate of Chlamydia Cases by Year of Diagnosis and Sex, District of Columbia, 2005-2009 .....	43
Figure 27. Rate of Gonorrhea Cases by Year of Diagnosis and Sex, District of Columbia, 2005-2009 .....	44
Table 18. Chlamydia Rates in US Cities and Counties, Ranked by Rate per 100,000 population, 2009 ..	44
Table 19. Gonorrhea Rates in US Cities and Counties, Ranked by Rate per 100,000 population, 2009 ..	44
Table 20. Number and Rate per 100,000 Population of Chlamydia Cases by Year of Diagnosis, Sex, Race, Ethnicity, Age at Diagnosis, and Ward, District of Columbia, 2005-2009 .....	45
Table 21. Number and Rate per 100,000 Population of Gonorrhea Cases by Year of Diagnosis, Sex, Race, Ethnicity, Age at Diagnosis, and Ward, District of Columbia, 2005-2009 .....	46
<i>Reported Cases of Primary and Secondary Syphilis in the District of Columbia .....</i>	<i>46</i>



Figure 28. Reported Cases of Primary and Secondary Syphilis by Year of Diagnosis, District of Columbia, 2005-2009 .....	47
Figure 29. Reported Cases of Primary and Secondary Syphilis, District of Columbia, 2005-2009.....	47
Figure 30. Reported Cases of Primary and Secondary Syphilis by Sex, District of Columbia, 2005-2009 .....	48
Figure 31. Primary and Secondary Syphilis Cases by Race/Ethnicity, District of Columbia, 2005-2009	48
Figure 32. Reported Cases of Primary and Secondary Syphilis Cases by Age, District of Columbia, 2005-2009 .....	49
Table 22. Number and Percentage of Primary and Secondary Syphilis Cases by Year of Diagnosis, Sex, Race, Ethnicity, Age at Diagnosis, and Ward, District of Columbia, 2005-2009 .....	49
Figure 33. Rate of Primary and Secondary Syphilis Cases by Year of Diagnosis and Sex, District of Columbia, 2005-2009 .....	50
Table 23. Primary and Secondary Syphilis Rates in US Cities and Counties, Ranked by Rate per 100,000 population, 2009 .....	51
Table 24. Number and Rate per 100,000 Population of Primary & Secondary Syphilis Cases by Year of Diagnosis, Sex, Race, Ethnicity, Age at Diagnosis, and Ward, District of Columbia, 2005-2009 .....	52
<b>Section VII. Viral Hepatitis .....</b>	<b>54</b>
<i>Understanding Viral Hepatitis Surveillance for the District of Columbia .....</i>	<i>54</i>
<i>Chronic Hepatitis B .....</i>	<i>54</i>
Table 25. Reported Chronic Hepatitis B Cases by Gender, Race/Ethnicity, and Age at Diagnosis, and Year of Diagnosis, District of Columbia, 2005 - 2009 .....	55
<i>Chronic Hepatitis C .....</i>	<i>56</i>
Table 26. Reported Chronic Hepatitis C Cases by Gender, Race/Ethnicity, and Age at Diagnosis, Year of Diagnosis, and Case Classification, District of Columbia, 2005-2009 .....	57
<i>Acute Hepatitis A .....</i>	<i>57</i>
Table 27. Reported Acute Hepatitis A Cases by Gender, Race/Ethnicity, and Age at Diagnosis, Year of Diagnosis, District of Columbia, 2005-2009.....	58
<i>Programmatic Priorities.....</i>	<i>58</i>
<i>Hepatitis Vaccinations.....</i>	<i>59</i>
Figure 34. Completed Hepatitis A, B and Twinrix Vaccine Series Vaccine Type and Year, District of Columbia, 2005-2009 .....	60
<b>Section VIII. Tuberculosis.....</b>	<b>61</b>
<i>Understanding Tuberculosis Surveillance.....</i>	<i>61</i>
Table 28. Reported TB Rate per 100,000 People and Proportion by Selected Characteristics, District of Columbia, 2005-2009 .....	62
Figure 35. Reported TB Cases by Year of Diagnosis, District of Columbia, 2005-2009 .....	63
Figure 36. Foreign Born and US-Born TB Cases by Year of Diagnosis, District of Columbia, 2005-2009	64
<i>Programmatic Priorities.....</i>	<i>64</i>

## Section IX. Disease Co-Infections ..... 65

### *Syphilis and HIV Co-Infection*..... 66

Table 29. Syphilis/HIV Co-Infections among Men by Selected Characteristics, District of Columbia, 2005-2009 .....66

Figure 37. Syphilis and HIV Co-Infection by Year of Syphilis Diagnosis, District of Columbia, 2005-2009 .....67

### *Chlamydia and HIV Co-Infection*..... 68

Table 30. Chlamydia/HIV Co-Infection by Selected Characteristics, District of Columbia, 2005-2009...68

### *Gonorrhea and HIV Co-Infection* ..... 69

Table 31. Gonorrhea/HIV Co-Infection by Selected Characteristics, District of Columbia, 2005-2009 ..69

### *Chronic Hepatitis B and HIV Co-Infection*..... 70

Table 32. Chronic Hepatitis B/HIV Co-Infection by Selected Characteristics, District of Columbia, 2005-2009 .....70

### *Chronic Hepatitis C and HIV Co-Infection*..... 71

Table 33. Chronic Hepatitis C/HIV Co-Infection by Selected Characteristics, District of Columbia, 2005-2009 .....71

### *Tuberculosis Co-Infection*..... 72

Figure 38. Reported Cases of Tuberculosis Co-infected with HIV by Year, District of Columbia, 2005-2009 .....72

## Section X. Geographic Distribution ..... 73

### *Summary*..... 73

Map 1. Proportion of Adults and Adolescents Living with HIV/AIDS by Ward, District of Columbia, 2009 .....74

Map 2. Numbers of Adults and Adolescents Living with HIV/AIDS by Ward, District of Columbia, 2009 .....75

Map 3. Number of Reported Cases of Chronic Hepatitis B by Ward, District of Columbia 2005-2009.....76

Map 4. Number of Reported Cases of Chronic Hepatitis C by Ward, District of Columbia 2005-2009.....77

Map 5. Chlamydia Rates per 100,000 Population by Ward, District of Columbia, 2009 .....78

Map 6. Gonorrhea Rate per 100,000 Population by Ward, District of Columbia, 2009 .....79

Map 7. Primary & Secondary Syphilis Rates per 100,000 Population by Ward, District of Columbia, 2009 .....80

Map 8. Number of Reported Cases of Tuberculosis by Ward, District of Columbia, 2005-2009 .....81

## Section XI. Definitions..... 82

### *Definitions for HIV/AIDS*..... 82

### *Definitions for Opportunistic Infections*..... 88

### *Definitions for Hepatitis* ..... 89

### *Definitions for Sexually Transmitted Diseases*..... 90

<i>Definitions for Tuberculosis .....</i>	<i>91</i>
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## Acknowledgements

This report was completed by the combined efforts of many individuals in the District of Columbia Department of Health HIV/AIDS, Hepatitis, STD, and TB Administration, with major contribution from The George Washington University School of Public Health and Health Services, Department of Epidemiology and Biostatistics. In addition, this report would not have been possible without the hard work, dedication, and contribution of health care providers, community groups, researchers, and members of the community.

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## Executive Summary

The year 2010 heralded two milestones in the response to HIV/AIDS and other epidemics in the District of Columbia: new leadership for our one city and a historic, new National HIV/AIDS Strategy. The District Government and its community partners continued to make strides to diagnose persons early in their disease, connect more people into care and treatment quicker, and improve their health outcomes. Mayor Vincent Gray appointed a new Commission on HIV to build on and develop new strategies focused on treatment, the needs of people living with HIV, and reducing new infections. Washington, DC will be in the spotlight in 2012 when it hosts the International AIDS Conference. This update on the status of HIV and related sexually transmitted diseases, hepatitis and tuberculosis spotlights the progress DC is making to reduce the burden of disease and the challenges that remain to end the epidemics.

The 2010 Update reports that the District maintains severe epidemics of HIV/AIDS, STDs (Sexually Transmitted Diseases) and hepatitis C. The overall prevalence of HIV remains 3.2% among DC adults and adolescents, above the World Health Organization definition of 1% for a generalized epidemic. The U.S. Centers for Disease Control HIV Case Surveillance Guidelines indicate that HIV prevalence rates are based on the jurisdiction with the earliest date of HIV diagnosis. Although there were 755 newly diagnosed cases in 2009 among District residents, the increase in the number of people who were District residents at the time of their HIV diagnosis increased from 16,513 reported in 2008 to 16,721 in 2009. The epidemic continues to disproportionately impact blacks, adults ages 30 to 59 and geographically in Wards 5, 6, 7 and 8. Persons living with HIV/AIDS are often at risk and living with other communicable diseases. Over the past five years, there were nearly 1,500 STD and HIV co-infections, highlighting the need for targeted services, such as identification of partners and prevention programs for persons who are HIV positive. There were 1,510 HIV positive persons co-infected with hepatitis C between 2005 and 2009. This represents 12.6% of all chronic hepatitis C cases reported in the District. STDs among young District residents continue to be a public health challenge. Nearly half of the chlamydia and gonorrhea diagnoses are among District residents 15-19 year olds, with two thirds of all diagnoses among people under the age of 24.

The DC Department of Health continues to improve its data collection and to provide the strongest and best data available. For HIV/AIDS, the Department has nearly completed its five-year transition to a mature surveillance system. In 2012, the District's Confidential Named-Based HIV Surveillance System will have matured and we anticipate being able to report new HIV-only cases for the first time since 2007. During this past year and for the next year, the Department will conduct a CDC required evaluation of the HIV Case Surveillance System – expanding efforts to transition the remaining 2,000 code based HIV cases to named HIV cases, accounting for cases diagnosed originally in other locations, reviewing national death registries, among other factors – which will result in adjusted prevalence numbers in next year's report. The data presented remain the highest quality statistics compiled on HIV/AIDS, hepatitis, STDs and TB in the District of Columbia.

In the 2009 Update, the Department of Health reported the first ever decline in new AIDS cases. This year, the Department notes a preliminary decline in the number of new HIV and AIDS cases by nearly half from 1,311 in 2007 to 755 in 2009. The Department is not yet ready to characterize this decrease as a substantial change in the District's epidemic. The HIV surveillance system continues to mature, the Department is completing the transition from code-based to confidential name-based reporting, and there may be potential impacts from socio-demographic changes in the region. The Department is also examining HIV incidence and plans to report data in 2013. Over the next couple of years, the number of new cases may vary. Meanwhile, the Department will provide more analysis as it studies the trend.

Overall, the Department of Health is encouraged that expanded testing efforts that more than doubled publicly supported tests and routine testing in medical settings reached many early in their infection and those who were unaware of their diagnosis. This is evident from the higher numbers of new cases in 2007 and 2008. Based on DC behavioral studies, the Department believes that there are individuals who do not access health care services regularly and social networks with potentially higher infection rates. The Department intends to expand into

social networking testing through its participation in the National HIV/AIDS Strategy Enhanced Comprehensive HIV Prevention Plan initiative.

### National HIV/AIDS Strategy

The opening introductory sentence of President Obama's National HIV/AIDS Strategy reads: "It has been nearly thirty years since the first cases of human immunodeficiency virus (HIV) garnered the world's attention." What is striking and exciting about this introduction is that in the 30 years of the epidemic in the U.S. – this is the first true national strategy. For the countless and courageous public health workers in the front lines of the fight against HIV/AIDS, there is now a strong framework and direction to help win the battle against this epidemic. DC embraces the National HIV/AIDS Strategy. Its principles and goals mirror the work the government and community have been doing to reduce the burden of this epidemic in the city. President Obama said that the country is at the crossroads with HIV. The District sees the tremendous opportunity with the National Strategy, the Mayor's Commission on HIV and the lead up to the International AIDS Conference to build on current progress for future success.

In this Update and in future ones, the Department of Health will provide progress on how DC is meeting the National Strategy goals and objectives. The following is a chart on the nine specific objectives and their targets.



## District of Columbia and the National HIV/AIDS Strategy

Objective	National Target 2015	DC 2009	DC 2015	Data Source
<b>Reducing New HIV Infections</b>				
Objective 1	Reduce the number of new infections by 25%	755 New HIV/AIDS cases <i>Note: 28% reduction in cases from 1,059 (2008) to 755 (2009)</i>	566 new cases	The District of Columbia plans to release HIV incidence estimates in 2013. During the interim we have used newly diagnosed HIV/AIDS cases to approximate incident or new infections.
Objective 2	Reduce the HIV transmission rate, which is a measure of annual transmissions in relation to the number of people living with HIV, by 30% (from 5 persons infected per 100 people living with HIV to 3.5 people living with HIV)	4.5 persons per 100 people living with HIV	3.2 persons per 100 people living with HIV	We are estimating this based on newly diagnosed HIV/AIDS cases. Once the incidence estimates are released we will use these to approximate transmission rates.
Objective 3	Increase the percentage of people living with HIV who know their serostatus from 79% to 90%.	53%-70%	90%	National HIV Behavioral Surveillance Data
<b>Increasing Access to Care and Improving Health Outcomes for People Living with HIV</b>				
Objective 4	Increase the proportion of newly diagnosed patients linked to clinical care within 3 months of their HIV diagnosis from 65% to 85%	75%	85%	Name-based HIV surveillance data
Objective 5	Increase the proportion of Ryan White HIV/AIDS Program clients who are in continuous care (at least 2 visits for routine HIV medical care in 12 months at 3 months apart) from 73% to 80%	23% Continuous care 75% Sporadic care	80%	Name-based HIV surveillance and laboratory data. Continuous care is defined as having evidence (e.g. HIV-related lab test) of at least 2 visits to an HIV medical provider 10-14 weeks apart. Sporadic care is defined as having only one visit to a provider or 2 visits but more than 14 weeks apart.
Objective 6	Increase the number of Ryan White clients with permanent housing from 82% to 86%	72%	86%	Ryan White Program/HOPWA
<b>Reducing HIV-Related Health Disparities</b>				
Objective 7	Increase the proportion of HIV diagnosed gay and bisexual men with undetectable viral load by 20%	27.5%	33%	Name-based HIV surveillance and laboratory data
Objective 8	Increase the proportion of HIV diagnosed Blacks with undetectable viral load by 20%	24.5%	29%	Name-based HIV surveillance and laboratory data
Objective 9	Increase the proportion of HIV diagnosed Latinos with undetectable viral load by 20%	32.0%	38%	Name-based HIV surveillance and laboratory data

The highlights of the report are summarized within the priority goals of HAHSTA that also mirror the National HIV/AIDS Strategy.

### Reducing New Infections

- The number of newly diagnosed HIV/AIDS cases in the District declined by nearly 50% from 1,311 in 2007 to 755 in 2009.
- There was a 60% decrease in the number of newly diagnosed HIV/AIDS cases attributable to injection drug use from 153 in 2007 – prior to the scale up of DC’s needle exchange programs – to 62 in 2009. The Department of Health believes that the expansion of needle exchange programs may have resulted in this decrease in new HIV/AIDS cases.
- From 2008 to 2009, there was a leveling of the number of new chlamydia and gonorrhea cases, which holds promise of a slowing in new infections.
- DC made more progress toward its goal of TB elimination with another decrease in cases from 54 in 2008 to 41 in 2009.

### Increasing Access to Care and Improving Health Outcomes

- The number of new AIDS cases decreased by 30% from 2005 to 2009.
- More than 75% of persons in DC entered into care and treatment within three months of their HIV diagnosis. This is a steady increase from the 58% in 2005.
- Average CD4 count at diagnosis increased again from 352 in 2008 to 361 in 2009. Overall, there has been an increase of 71% from 211 in 2004.
- The number of persons testing late declined by nearly 10% from 53.3% 2008 to 44.0% in 2008.
- The proportion of persons progressing from HIV to AIDS decreased again to 24.2% in 2008, cut nearly in half from 47% in 2004.
- The number of deaths among persons with HIV/AIDS decreased by more than half from 326 in 2005 to 153 in 2009.

### Reducing Health Disparities

Health disparities remain a challenge in the District with overall disproportionate impact of HIV and STDs among blacks. There are other emerging disparities among other population groups noted in this report.

- The proportion of new AIDS cases among older adults (ages 50 years old and older) has increased from 19% in 2005 to 26% in 2009.
- Older adults had the highest rates of late testing at more than 70% compared to 44% among all ages.
- A greater proportion of Hispanics were diagnosed with AIDS between 20 and 29 years of age than whites and blacks.
- A higher proportion of Hispanics were late testers; 64% compared to 44% among all racial groups.
- Adolescents (ages 15 to 19 years old) continue to comprise the largest proportion of chlamydia (40%) and gonorrhea (34%) cases.
- Syphilis is disproportionately impacting blacks at 57% of all cases and 40% of cases reside in Wards 1 and 2.
- Women now represent a higher proportion of TB cases increasing from 36% in 2005 to 59% in 2009.



## Scaling Up the Success

The District Government and its community partners continue to scale up its progress in reducing the impact of HIV/AIDS, STDs, hepatitis and TB on residents of Washington, DC.

- **Testing.** From 2006 to 2010, DC nearly tripled the number of publicly supported HIV tests from 42,000 to 110,000.
- **Care and Treatment.** Since 2007, the Department of Health nearly tripled the number of District residents receiving free HIV medications. In 2010, the Department worked closely with the DC Department of Health Care Finance to support more than 1,000 persons living with HIV to enroll in the Health Care Reform expansion of Medicaid. The Department launched a rapid entry into care program guaranteeing a HIV medical appointment within 48 hours of a person's diagnosis.
- **Prevention.** In 2010, DC distributed 4 million free male condoms and nearly 250,000 free female condoms. The Department launched its new *Join the Rubber Revolution* and *DC's Doin' It* campaigns to promote male and female condom use. The Department doubled the number of hepatitis A and B vaccinations from 2,000 before 2009 to 4,000 in 2010.
- **Youth.** In 2010, DC reached every public high school and several public charter schools with free voluntary STD testing through its school-based program. The Department improved its treatment rate to 93%.
- **National Initiatives.** The District successfully competed for two national initiatives on prevention and improved service delivery. DC is one of 12 jurisdictions taking part in the Enhanced Comprehensive HIV Prevention Plan initiative and receiving \$1 million. DC also received \$350,000 under the Program Services and Coordination Initiative to improve services and health outcomes. DC also was awarded a Social Innovation Fund grant for "Positives Pathway" a new program to train peer community health workers to improve entry and retention into HIV medical care.
- **Harm Reduction and Needle Exchange.** DC's comprehensive harm reduction/needle exchange program is showing results with a 60% decrease in new HIV/AIDS cases attributable to injection drug use while it continued to remove more than 300,000 needles from DC streets, enroll 1,300 new clients and provide HIV testing and linkage to drug treatment.
- **Partnerships.** The Department of Health launched a new partnership to be the first city in the country to offer HIV testing at a government motor vehicles office. The partnership with Gilead Sciences, the DC Department of Motor Vehicles, and Family and Medical Counseling has already exceeded projected numbers of HIV tests at more than 1,600 in 4 months.
- **Building Community Capacity.** The Effi Barry Program is proving that small ward-based organizations are learning more about HIV and organizational development as they increased their pre- and post-test workshop scores by nearly 20%.

## Next Steps: One Healthy City

The District continues to experience a high burden of HIV/AIDS and there are also high rates of STDs, hepatitis and TB. The high quality data contained in this Update provide the cornerstone of the current challenge posed by these multiple epidemics. The District has developed a modern, data-driven, response that has prioritized testing to find undiagnosed residents, immediate linkage into care and treatment to promote health outcomes and large-scale strategies to prevent new infections. We have also put in place a highly detailed results framework to track our



progress. This Update includes multiple data sources – behavioral surveys, program reports, population-based studies, academic research, qualitative studies – that together provide the fuel to drive the District’s fight to prevent, promote and protect the health of the city’s residents. The accomplishments cited have elevated DC into a new level of attack on these epidemics. But we can do more: mobilizing more residents to learn their HIV status, diagnosing more active STDs, contacting more people exposed to TB and vaccinating against hepatitis. By uniting our government, community partners, residents, medical providers, academia, experts, the private sector and our neighbors in the region, we can truly have one city for all to live long and healthy lives.



## Section I. Understanding HIV/AIDS Surveillance Data

The District of Columbia Municipal Code (22 DCMR 206) mandates reporting of all HIV and AIDS diagnoses. An HIV diagnosis or case refers to a person with HIV infection who has not progressed to AIDS. An AIDS case refers to a person with a diagnosis of HIV infection and a later diagnosis of AIDS, or a person with a concurrent diagnosis of HIV infection and AIDS. AIDS is defined by CD4 counts less than 200 cells/ $\mu$ L or an AIDS defining opportunistic infection. Reports of confirmed HIV and AIDS cases are accepted only and anonymous tests are not reported. Surveillance reports are received from a variety of sources including hospitals, private physicians' offices, community-based organizations, clinics, and laboratories. Data on HIV and AIDS cases are currently entered into the federally issued enhanced HIV/AIDS Reporting System (eHARS) and de-identified case information is shared with CDC monthly. CDC then uses these data to prepare national surveillance reports.

### Transition to Name Based Reporting

HIV/AIDS surveillance has evolved in the District over the past two decades. AIDS surveillance began as confidential name-based reporting in 1985; that is, cases were reported to DOH by name. HIV (not AIDS) surveillance began as code-based reporting in 2001. A unique identifier was generated for each HIV report and was a combination of the person's last name, date of birth, sex, and social security number. These reports were then entered into a separate database known as the Unique Identifier System (UIS).

The District's code-based reporting system had a number of limitations. Similar to most other jurisdictions using code-based systems, the District's system was never formally evaluated. For example, the unique identifier code created to report HIV cases was not evaluated for the uniqueness of the code elements or redundancy. Moreover, the reported HIV data are not complete. As a result, there was a potential for duplicative reports both within the code-based HIV reporting system and between the individual HIV and AIDS reporting systems. Effective November 17, 2006, as per CDC requirements, the District began implementing HIV reporting by name. This required both laboratories and providers to report all HIV cases by name to DOH. In addition, laboratories are now required to report all viral load tests, CD4 counts, and other tests indicative of HIV infection or an AIDS diagnosis.

### Understanding our Prevalence Estimate

There were 755 newly diagnosed HIV and AIDS cases reported and entered in the eHARS database in 2009 however the total number of living HIV/AIDS cases in the District increased by 208 cases between 2008 and 2009. The reasons for this difference are as follows:

- Completeness of death data has improved since our last report. In our 2009 Annual Report death data were complete through the end of 2007. In this report however our death data are complete through the end of 2009. Including the extra two years of death information reduces our prevalence but increases the accuracy of our report.
- CDC routinely notifies DOH if an HIV/AIDS case appears to be the same person reported in another state or jurisdiction. CDC makes this determination based on the 'soundex' (a phonetic algorithm for indexing names) of a case's last name, date of birth, and sex at birth. Each case is investigated to determine if it is the same individual. If such a determination is made the state with the earliest report date claims the case. The summary table below shows how many of our newly diagnosed cases were possible duplicates and the number and proportion of cases that were assigned to another state.

Year of HIV/AIDS Diagnosis	Potential Duplicate Cases Identified	Cases Assigned to Other States	
		N	%
2005	520	164	31.5
2006	600	158	26.3
2007	766	170	22.2
2008	564	133	23.6
2009	459	216	47.1

- DOH also continued extensive de-duplication efforts between our UIS (HIV code-based) database and the eHARS (HIV/AIDS name-based) database. Thirty two (32) cases were found to exist in both databases and were subsequently removed from the code-based system.

### Moving Forward

The CDC estimates that in the District, as in other jurisdictions, it takes approximately five years for the name-based HIV reporting system to mature. Therefore we anticipate that our name based reporting system will be fully mature for next year's annual report allowing us to only report cases captured in the eHARS database. With this change we expect that the prevalence will drop as we will no longer include the code-based HIV cases in our overall number of living cases.

## **Section II. Overview of HIV/AIDS in the District of Columbia**

This section provides an overview of the HIV/AIDS epidemic in the District and a more detailed look at HIV/AIDS with regards to demographics such as sex, race/ethnicity, and age as well as mode of transmission. Subsequent sections will also provide information on the geographic distribution of cases throughout the city.

### Summary

The World Health Organization defines generalized epidemics as those in which the prevalence of HIV/AIDS is greater than 1% in the overall population. As of December 31, 2009 there were 16,721 residents of the District of Columbia living with HIV/AIDS. This accounts for approximately 3.2% of the population 13 years of age and older, indicative of a continued generalized epidemic in the District.

District residents over 40 years of age continue to be disproportionately impacted by HIV/AIDS. Approximately 7.4% of residents 40-49 years of age and 6.1% of residents 50-59 years of age are living with HIV/AIDS. This year's report also indicates that adults and adolescents living with HIV/AIDS in the District are aging as there was an increase in the proportion of 50-59 year olds and those 60 years and older living with HIV/AIDS between 2008 and 2009.

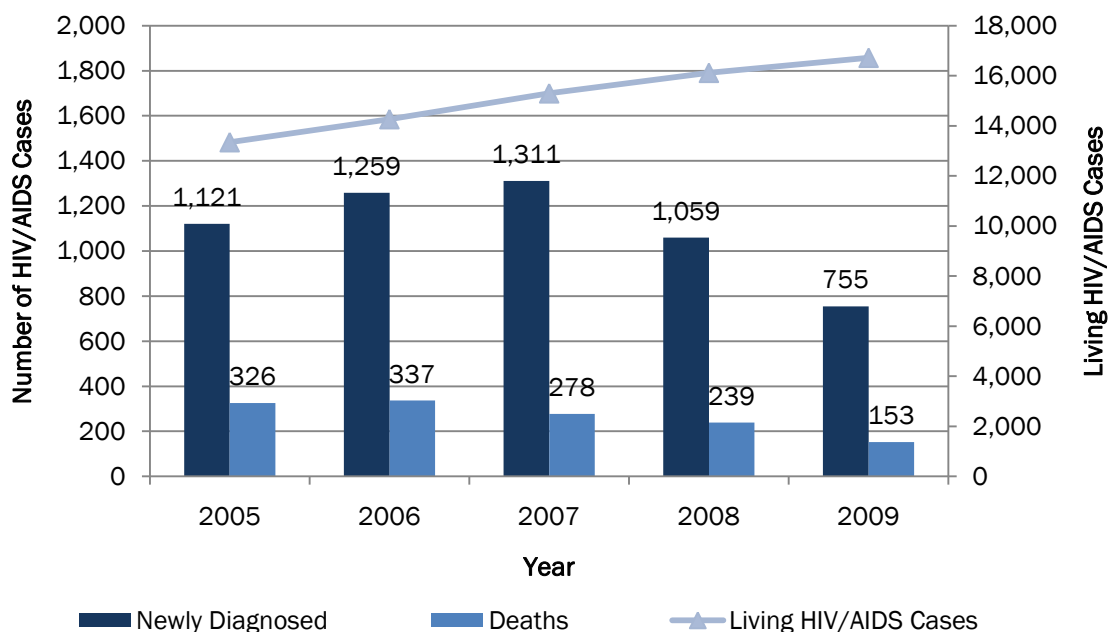
Blacks still account for the majority of living HIV/AIDS cases in the District. At the end of 2009, 4.7% of black residents were living with HIV/AIDS. The highest burden of disease however is among black males with 7.1% of black males living in the District of Columbia infected. Approximately 2.2% of Hispanic residents and 1.5% of white residents were also living with HIV/AIDS.

As seen in previous years, men who have sex with men is the leading mode of transmission of all HIV/AIDS cases in the District of Columbia. By the end of 2009, 38.8% of all living HIV/AIDS cases among adults and adolescents were attributed to this mode of transmission. Heterosexual transmission accounted for 27.2% of living cases followed by injection drug use at 16.4%. Mode of transmission differs greatly by race/ethnicity however. While men who have sex with men is the leading mode of transmission among whites (79.0%) and Hispanics (51.8%), heterosexual contact is the leading mode of transmission among blacks (32.4%) living with HIV/AIDS.

Detailed Description

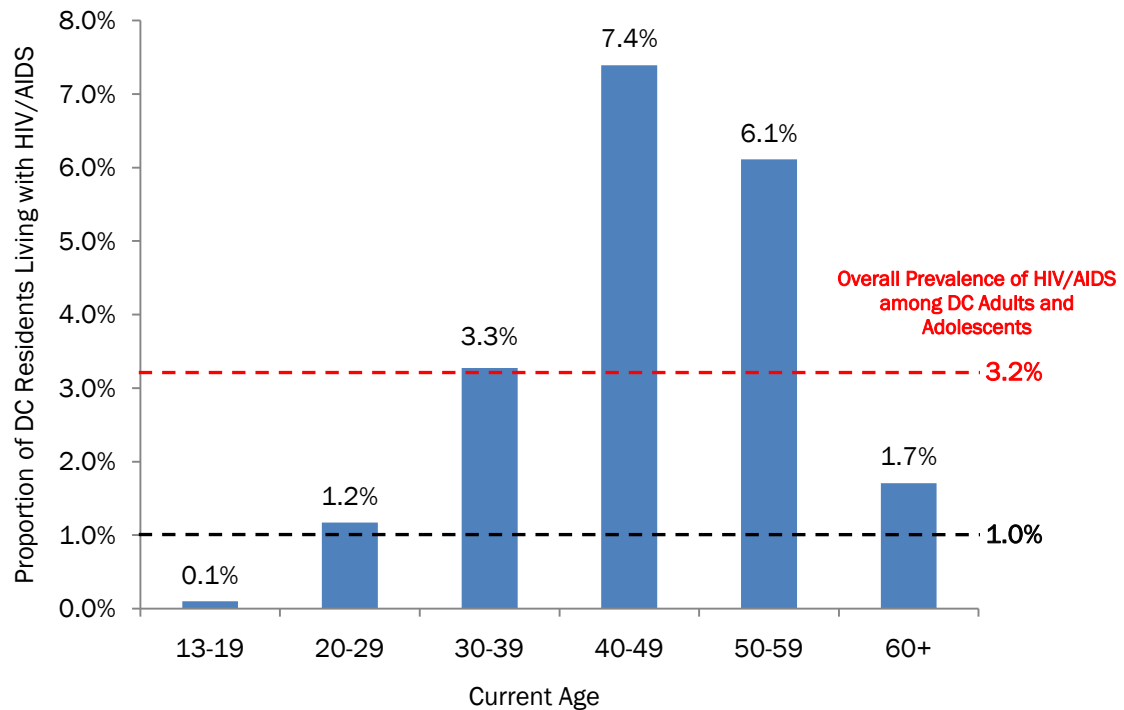
The following figures and tables contain details about the HIV/AIDS epidemic in the District of Columbia.

**Figure 1. HIV/AIDS Cases, Deaths, and Prevalence, District of Columbia, 2005-2009**

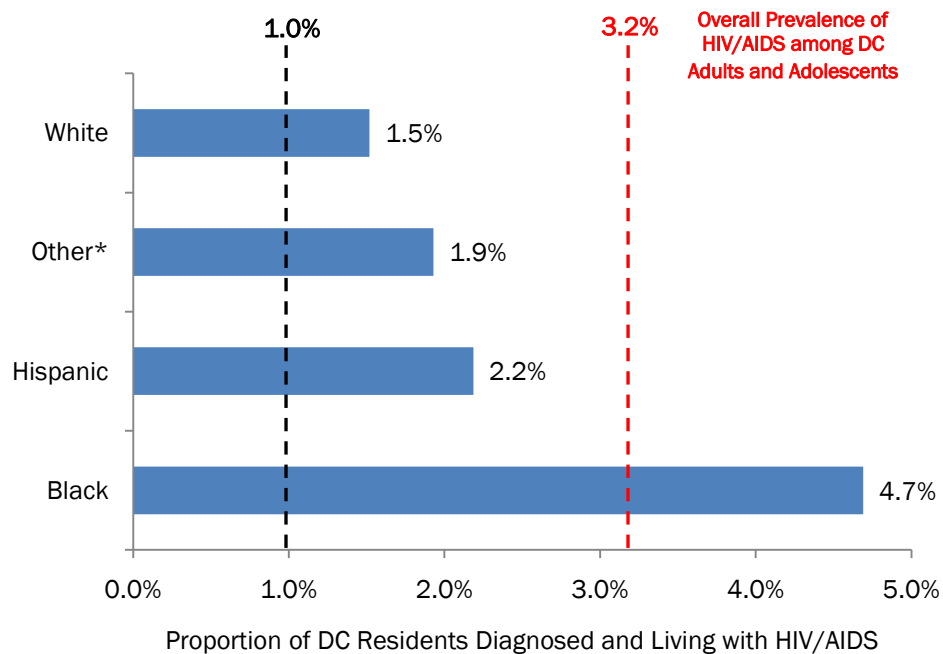


- Between 2005 and 2009 the number of newly diagnosed HIV/AIDS cases peaked in 2007.
- The total number of deaths among HIV/AIDS cases was 1,333 between 2005 and 2009. The number of deaths among HIV/AIDS cases decreased by 53% during this period.

**Figure 2. Proportion of Adults and Adolescents Diagnosed and Living with HIV/AIDS by Current Age, District of Columbia, 2009**

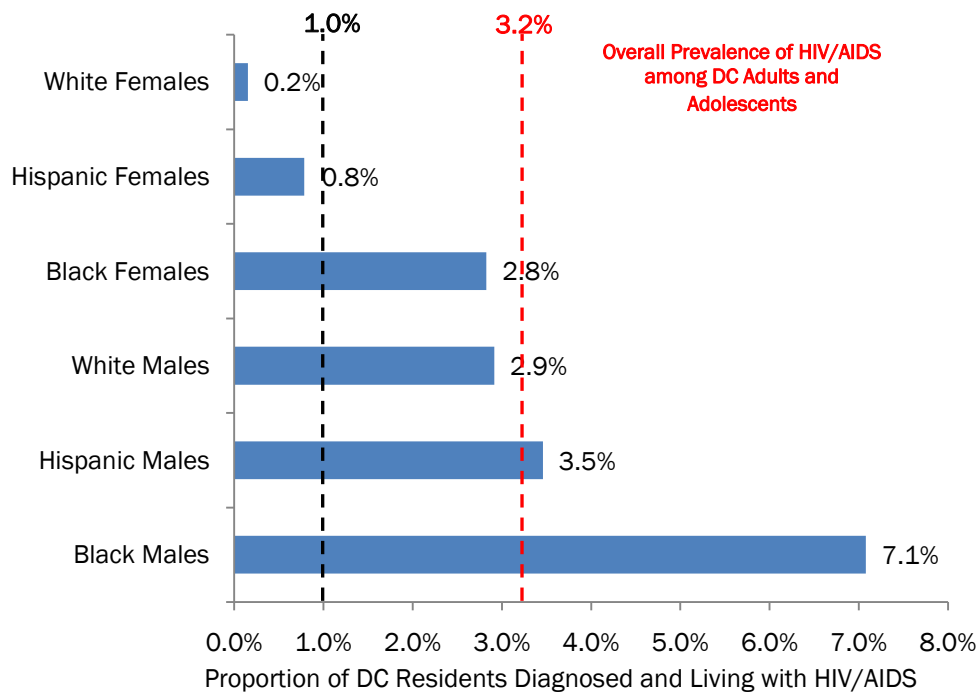


**Figure 3. Proportion of Adults and Adolescents Diagnosed and Living with HIV/AIDS by Race/Ethnicity, District of Columbia, 2009**



\*Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiian, Pacific Islanders, and Unknowns.

**Figure 4. Proportion of Adults and Adolescents Diagnosed and Living with HIV/AIDS by Race/Ethnicity and Sex, District of Columbia, 2009**



- While the prevalence in almost all age groups exceeded 1.0%, District residents aged 40-49 were the most significantly impacted by HIV/AIDS. Approximately 7.4% of residents in this age group were living with HIV/AIDS (Fig.1).
- Black residents remained the most severely impacted racial group with 4.7% of this population living with HIV/AIDS (Fig. 2).
- As in previous years, black males had the highest burden of disease (Fig. 3). Approximately 7.1% of black males in DC were living with HIV/AIDS, followed by Hispanic males at 3.5%.
- Black women in DC were 14 times more likely to be living with HIV/AIDS than white women (Fig. 3).



**Table 1. Living HIV/AIDS Cases and Rates among Adults and Adolescents by Sex, Race/Ethnicity, and Current Age, District of Columbia, 2009**

Sex	Living HIV/AIDS Cases as of 12/31/09		DC Population, 2009		Rate per 100,000
	N	%	N	%	
Male	12,051	72.1	240,044	46.5	5,020.3
Female	4,670	27.9	275,945	53.5	1,692.4
<b>Total</b>	<b>16,721</b>	<b>100.0</b>	<b>515,989</b>	<b>100.0</b>	<b>3,240.6</b>
<b>Race/Ethnicity</b>					
White	2,761	16.5	181,844	35.2	1,518.3
Black	12,581	75.2	268,212	52.0	4,690.7
Hispanic	912	5.5	41,728	8.1	2,185.6
Other*	467	2.8	24,205	4.7	1,929.4
<b>Total</b>	<b>16,721</b>	<b>100.0</b>	<b>515,989</b>	<b>100.0</b>	<b>3,240.6</b>
<b>Male</b>					
White	2,620	21.7	89,916	37.5	2,913.8
Black	8,325	69.1	117,631	49.0	7,077.2
Hispanic	756	6.3	21,856	9.1	3,459.0
Other*	350	2.9	10,641	4.4	3,289.2
<b>Total</b>	<b>12,051</b>	<b>100.0</b>	<b>240,044</b>	<b>100.0</b>	<b>5,020.3</b>
<b>Female</b>					
White	141	3.0	91,928	33.3	153.4
Black	4,256	91.1	150,581	54.6	2,826.4
Hispanic	156	3.3	19,872	7.2	785.0
Other*	117	2.5	13,564	4.9	862.6
<b>Total</b>	<b>4,670</b>	<b>100.0</b>	<b>275,945</b>	<b>100.0</b>	<b>1,692.4</b>
<b>Current Age</b>					
13-19	53	0.3	52,695	10.2	100.6
20-29	1,296	7.8	110,670	21.4	1,171.0
30-39	3,190	19.1	97,452	18.9	3,273.4
40-49	5,950	35.6	80,489	15.6	7,392.3
50-59	4,511	27.0	73,814	14.3	6,111.3
≥60	1,721	10.2	100,869	19.5	1,706.2
<b>Total</b>	<b>16,721</b>	<b>100.0</b>	<b>515,989</b>	<b>100.0</b>	<b>3,240.6</b>

\*Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiian, Pacific Islanders, and Unknowns.

- At the end of 2009, 16,721 adults and adolescents were living with HIV/AIDS in the District, accounting for 3.2% of District residents.
- Approximately 5.0% of male residents and 1.7% of female residents are diagnosed and living with HIV/AIDS.
- Men accounted for less than half (46.5%) of District residents but almost three-quarters (72.1%) of living HIV/AIDS cases.
- Although blacks accounted for just over half (52.0%) of District residents over the age of 12, over three quarters (75.2%) of District residents living with HIV/AIDS were black.
- Among District women, black women accounted for the majority of living HIV/AIDS cases (91.1%).
- District residents between 40- 49 years of age have the highest rate of HIV/AIDS at 7,392.3 cases per 100,000 population.

**Table 2. Living HIV/AIDS Cases among Adults and Adolescents by Race/Ethnicity and Mode of Transmission, District of Columbia, 2009**

	White		Black		Hispanic		Other*		Total	
	N	%	N	%	N	%	N	%	N	%
<b>Sex</b>										
Male	2,620	94.9	8,325	66.2	756	82.9	350	74.9	12,051	72.1
Female	141	5.1	4,256	33.8	156	17.1	117	25.1	4,670	27.9
<b>Total</b>	<b>2,761</b>	<b>100.0</b>	<b>12,581</b>	<b>100.0</b>	<b>912</b>	<b>100.0</b>	<b>467</b>	<b>100.0</b>	<b>16,721</b>	<b>100.0</b>
<b>Mode of Transmission</b>										
MSM	2,180	79.0	3,673	29.2	472	51.8	168	36.0	6,493	38.8
IDU	89	3.2	2,559	20.3	60	6.6	39	8.4	2,747	16.4
MSM/IDU	74	2.7	450	3.6	27	3.0	10	2.1	561	3.4
Heterosexual contact	157	5.7	4,077	32.4	231	25.3	88	18.8	4,553	27.2
RNI/Unknown	253	9.2	1,796	14.3	119	13.1	162	34.7	2,330	13.9
Other**	8	0.3	26	0.2	3	0.3	<3	–	37	0.2
<b>Total</b>	<b>2,761</b>	<b>100.0</b>	<b>12,581</b>	<b>100.0</b>	<b>912</b>	<b>100.0</b>	<b>467</b>	<b>100.0</b>	<b>16,721</b>	<b>100.0</b>
<b>Male</b>										
MSM	2,180	83.2	3,673	44.1	472	62.4	168	48.0	6,493	53.9
IDU	48	1.8	1,489	17.9	40	5.3	19	5.4	1,596	13.2
MSM/IDU	74	2.8	450	5.4	27	3.6	10	2.9	561	4.7
Heterosexual contact	80	3.1	1,580	19.0	125	16.5	36	10.3	1,821	15.1
RNI/Unknown	230	8.8	1,122	13.5	90	11.9	117	33.4	1,559	12.9
Other**	8	0.3	11	0.1	<3	–	<3	–	21	0.2
<b>Subtotal</b>	<b>2,620</b>	<b>100.0</b>	<b>8,325</b>	<b>100.0</b>	<b>754</b>	<b>100.0</b>	<b>350</b>	<b>100.0</b>	<b>12,051</b>	<b>100.0</b>
<b>Female</b>										
IDU	41	29.1	1,070	25.1	20	12.8	20	17.1	1,151	24.7
Heterosexual contact	77	54.6	2,497	58.7	106	68.0	52	44.4	2,732	58.5
RNI/Unknown	23	16.3	674	15.8	29	18.6	45	38.5	771	16.5
Other**	<3	–	15	0.4	<3	–	<3	–	16	0.3
<b>Subtotal</b>	<b>141</b>	<b>100.0</b>	<b>4,256</b>	<b>100.0</b>	<b>155</b>	<b>100.0</b>	<b>117</b>	<b>100.0</b>	<b>4,670</b>	<b>100.0</b>

\*Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiian, Pacific Islanders, and Unknowns.

\*\* Other mode of transmission includes hemophilia, blood transfusion, occupational exposure (health care workers) and perinatal.

- Of those living with HIV/AIDS, the most commonly reported mode of transmission was men who have sex with men (MSM) (38.8%), followed by heterosexual contact (27.2%), and injection drug use (IDU) at 16.4%.
- Mode of transmission differed greatly by race/ethnicity among District residents:
  - Among whites living with HIV/AIDS, MSM continued to be the most commonly reported mode of transmission accounting for over three quarters (79.0%) of cases in this group.
  - Among blacks living with HIV/AIDS, the leading mode of transmission was heterosexual contact (32.4%), followed by MSM (29.2%).
  - The leading mode of transmission among Hispanics was MSM (51.8%), followed by heterosexual contact (25.3%).
- Among men, MSM accounted for more than half (53.9%) of living HIV/AIDS cases and was the leading mode of transmission among men of all race/ethnic groups.
- Heterosexual contact accounted for over 58.5% of living HIV/AIDS cases in women and was the leading mode of transmission among females of all race/ethnic groups.

**Table 3. Living HIV/AIDS Cases among Adults and Adolescents, by Race/Ethnicity, Age at Diagnosis and Current Age, District of Columbia, 2009**

	White		Black		Hispanic		Other*		Total	
	N	%	N	%	N	%	N	%	N	%
<b>Age at Diagnosis</b>										
13-19	27	1.0	421	3.4	23	2.5	15	3.2	486	2.9
20-29	603	21.8	2,854	22.7	290	31.8	106	22.7	3,853	23.0
30-39	1,134	41.1	4,257	33.8	332	36.4	165	35.3	5,888	35.2
40-49	700	25.4	3,438	27.3	176	19.3	125	26.8	4,439	26.6
50-59	256	9.3	1,268	10.1	72	7.9	47	10.1	1,643	9.8
≥60	41	1.5	343	2.7	19	2.1	9	1.9	412	2.5
<b>Total</b>	<b>2,761</b>	<b>100.0</b>	<b>12,581</b>	<b>100.0</b>	<b>912</b>	<b>100.0</b>	<b>467</b>	<b>100.0</b>	<b>16,721</b>	<b>100.0</b>
<b>Current Age</b>										
13-19	≤3	--	51	0.4	≤3	--	≤3	--	53	0.3
20-29	109	4.0	1,057	8.4	91	10.0	39	8.4	1,296	7.8
30-39	512	18.5	2,306	18.3	263	28.8	109	23.3	3,190	19.1
40-49	1,062	38.5	4,405	35.0	321	35.2	162	34.7	5,950	35.6
50-59	749	27.1	3,494	27.8	163	17.9	105	22.5	4,511	27.0
≥60	328	11.9	1,268	10.1	74	8.1	51	10.9	1,721	10.3
<b>Total</b>	<b>2,761</b>	<b>100.0</b>	<b>12,581</b>	<b>100.0</b>	<b>912</b>	<b>100.0</b>	<b>467</b>	<b>100.0</b>	<b>16,721</b>	<b>100.0</b>

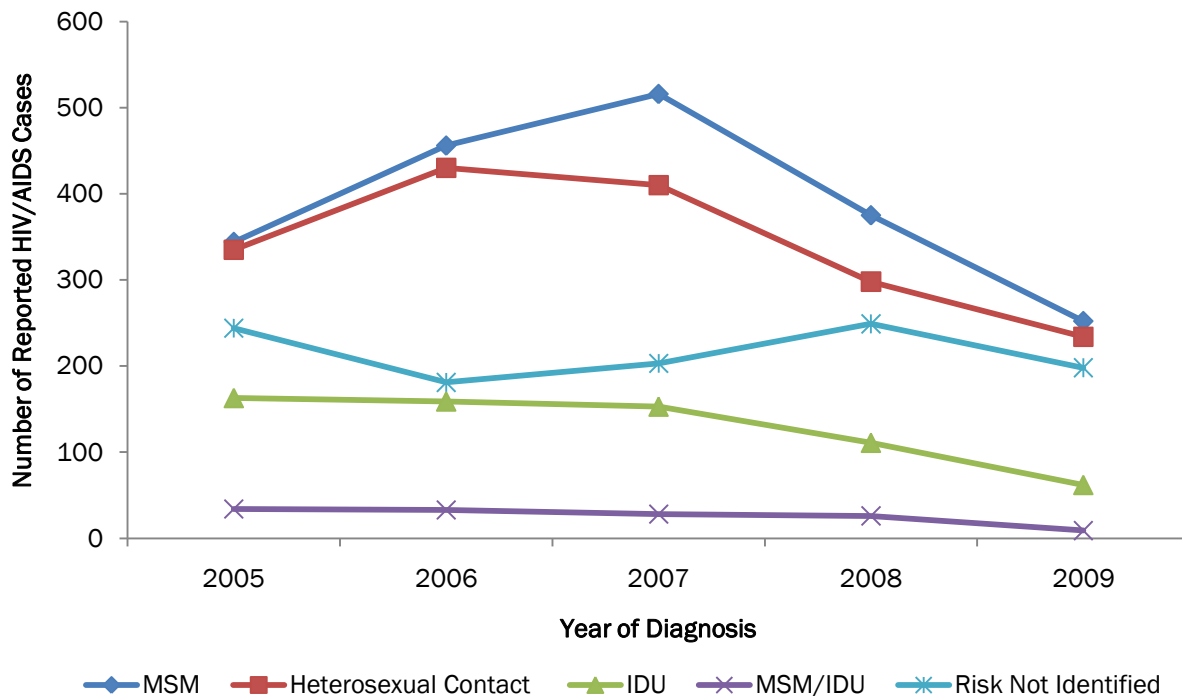
\*Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiian, Pacific Islanders, and Unknowns.

- People over 40 years of age continued to bear a heavy burden of HIV/AIDS disease in the District:
  - Nearly 40% (38.9%) of people living HIV/AIDS were over the age of 40 at the time of their initial HIV/AIDS diagnosis.
  - Nearly three-quarters (72.9%) of people living with HIV/AIDS are age 40 and above.
- Hispanics living with HIV/AIDS were generally younger than blacks and whites with HIV/AIDS. Approximately two-thirds of Hispanic cases (64.0%) were between 30-49 years of age in 2009, compared with 53.3% of blacks and 57.0% of whites.

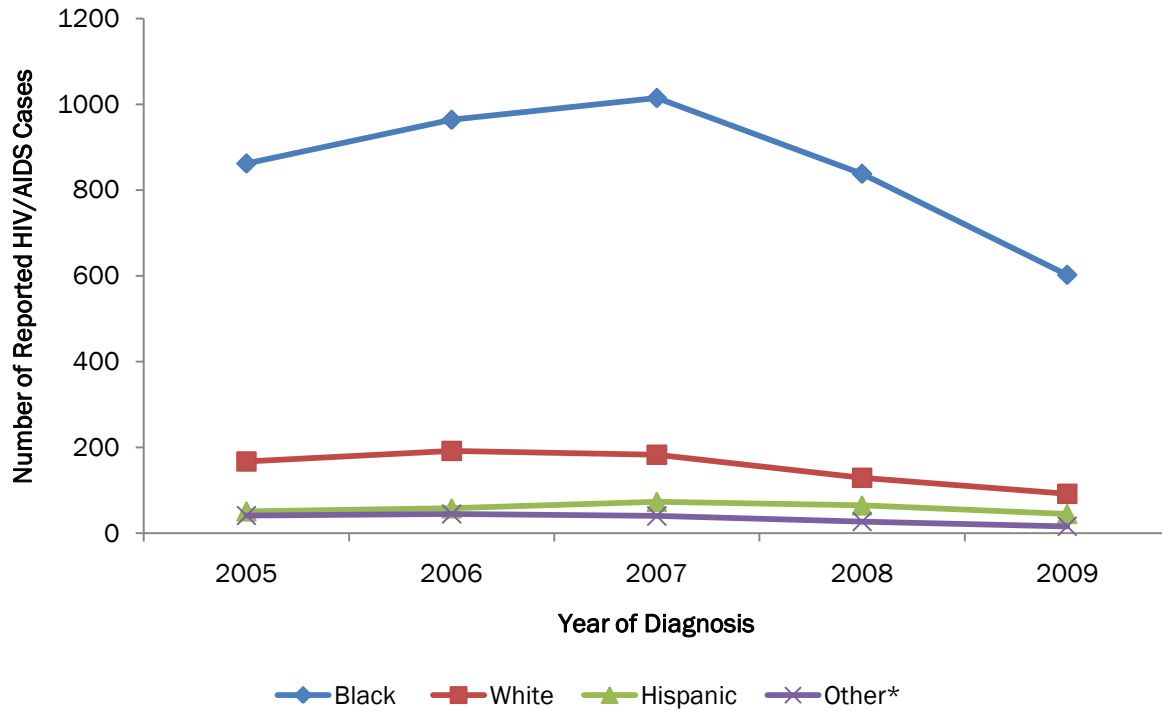
**Table 4. Newly Diagnosed HIV/AIDS Cases by Sex, Race/Ethnicity, Mode of Transmission, and Age, District of Columbia, 2005-2009**

	2005		2006		2007		2008		2009		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
<b>Sex</b>												
Male	762	68.0	902	71.6	934	71.2	750	70.8	546	72.3	3,894	70.7
Female	359	32.0	357	28.4	377	28.8	309	29.2	209	27.7	1,611	29.3
<b>Total</b>	<b>1,121</b>	<b>100.0</b>	<b>1,259</b>	<b>100.0</b>	<b>1,311</b>	<b>100.0</b>	<b>1,059</b>	<b>100.0</b>	<b>755</b>	<b>100.0</b>	<b>5,505</b>	<b>100.0</b>
<b>Race/Ethnicity</b>												
White	167	14.9	192	15.3	183	14.0	129	12.2	92	12.2	763	13.9
Black	862	76.9	964	76.6	1,015	77.4	838	79.1	602	79.7	4,281	77.8
Hispanic	51	4.5	58	4.6	73	5.6	65	6.1	45	6.0	292	5.3
Other*	41	3.7	45	3.6	40	3.1	27	2.5	16	2.1	169	3.1
<b>Total</b>	<b>1,121</b>	<b>100.0</b>	<b>1,259</b>	<b>100.0</b>	<b>1,311</b>	<b>100.0</b>	<b>1,059</b>	<b>100.0</b>	<b>755</b>	<b>100.0</b>	<b>5,505</b>	<b>100.0</b>
<b>Mode of Transmission</b>												
MSM	344	30.7	456	36.2	516	39.4	375	35.4	252	33.4	1,943	35.3
IDU	163	14.5	159	12.6	153	11.7	111	10.5	62	8.2	648	11.8
MSM/IDU	34	3.0	33	2.6	28	2.1	26	2.5	9	1.2	130	2.4
Heterosexual contact	335	29.9	430	34.2	410	31.3	298	28.1	234	31.0	1,707	31.0
Risk Not Identified	244	21.8	181	14.4	203	15.5	249	23.5	198	26.2	1,075	19.5
Other**	<3	--	<3	--	<3	--	<3	--	<3	--	<3	--
<b>Total</b>	<b>1,121</b>	<b>100.0</b>	<b>1,259</b>	<b>100.0</b>	<b>1,311</b>	<b>100.0</b>	<b>1,059</b>	<b>100.0</b>	<b>755</b>	<b>100.0</b>	<b>5,505</b>	<b>100.0</b>
<b>Age at Diagnosis</b>												
13-19	18	1.6	29	2.3	36	2.7	35	3.3	24	3.2	142	2.6
20-29	220	19.6	236	18.7	289	22.0	244	23.0	160	21.2	1,149	20.9
30-39	362	32.3	369	29.3	329	25.1	261	24.6	190	25.2	1,511	27.4
40-49	315	28.1	383	30.4	377	28.8	289	27.3	218	28.9	1,582	28.7
50-59	163	14.5	192	15.3	211	16.1	174	16.4	119	15.8	859	15.6
≥60	43	3.8	50	4.0	69	5.3	56	5.3	44	5.8	262	4.8
<b>Total</b>	<b>1,121</b>	<b>100.0</b>	<b>1,259</b>	<b>100.0</b>	<b>1,311</b>	<b>100.0</b>	<b>1,059</b>	<b>100.0</b>	<b>755</b>	<b>100.0</b>	<b>5,505</b>	<b>100.0</b>

**Figure 5. Newly Diagnosed HIV/AIDS Cases by Year of Diagnosis and Mode of Transmission, District of Columbia, 2005-2009**

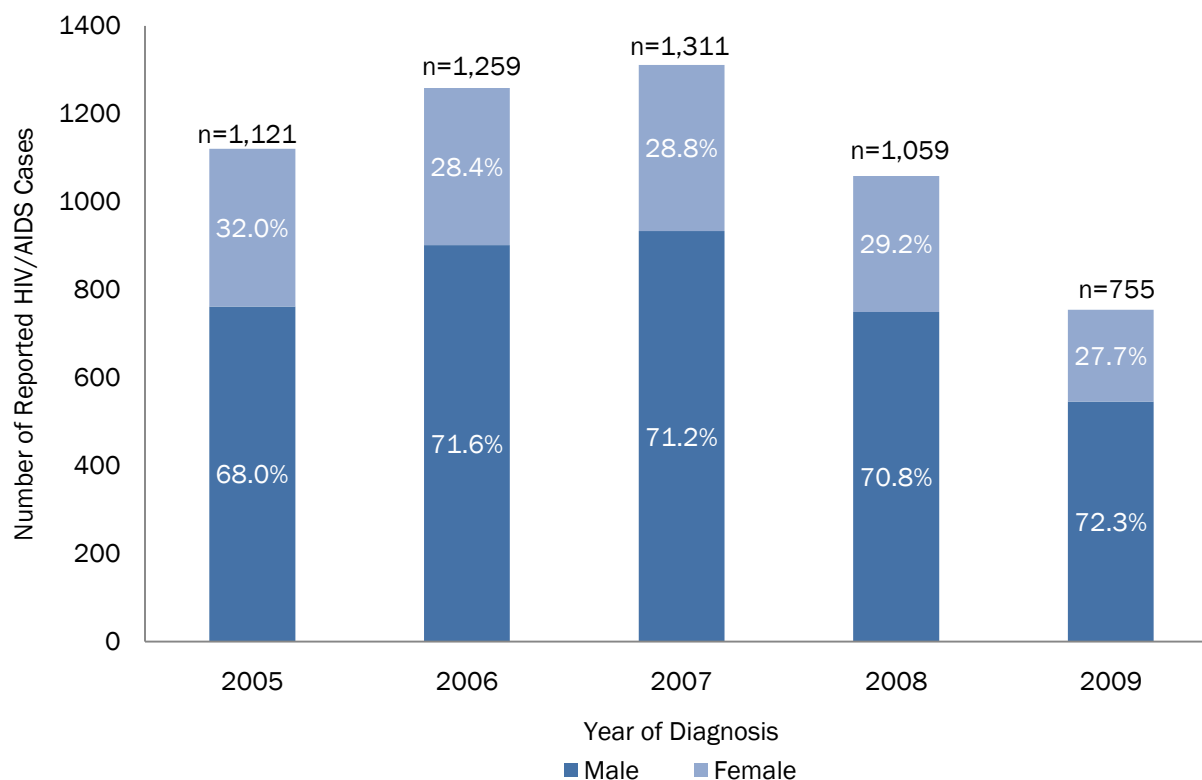


- MSM accounts for the greatest number of HIV/AIDS cases diagnosed each year however, the number of MSM cases decreased by approximately 27% since 2005.
- Heterosexual contact was the second most common mode of transmission for HIV/AIDS cases diagnosed during the last five years. HIV/AIDS cases attributed to heterosexual contact declined from 335 cases in 2005 to 234 cases in 2009, a decrease of 30%.
- The number of cases due to injection drug use has decreased by 62% since 2005. In 2005 163 newly diagnosed cases were attributed to injection drug use and in 2009 the number of cases was 62.

**Figure 6. Newly Diagnosed HIV/AIDS Cases by Year of Diagnosis and Race/Ethnicity, District of Columbia, 2005-2009**

- The number of newly diagnosed HIV/AIDS cases for whites decreased by 45% from 2005 to 2009.
- The number of newly diagnosed HIV/AIDS cases for blacks decreased by 30% from 862 cases in 2005 to 602 in 2009.



**Figure 7. Newly Diagnosed HIV/AIDS Cases by Year of Diagnosis and Sex, District of Columbia, 2005-2009**

- Men accounted for 70.9% of HIV/AIDS cases diagnosed in the last 5 years.
- The proportion of newly diagnosed HIV/AIDS cases among men was highest in 2009 (72.3%), but the actual number of HIV/AIDS cases diagnosed among men decreased from 762 cases in 2005 to 546 cases in 2009 (about a 30% decrease).
- The number of newly reported cases of HIV/AIDS among women decreased by 42% from 359 cases in 2005 to 209 in 2009.



The female condom with  
pleasure points for her  
and him – to tease, please  
and protect.

Go on, give it a try.



FC2 can now be purchased at  
**CVS/pharmacy**

## Section III. AIDS Trends in the District of Columbia

This section provides an overview of the AIDS epidemic in the District. The individual sections that follow provide a detailed look at AIDS with regards to sex, race/ethnicity, age, and mode of transmission. This section presents data on AIDS cases only.

### Summary

As of December 31, 2009, 19,525 people had been diagnosed with AIDS in the District of Columbia. Ten thousand seventy seven (10,077) of them died before the end of 2009 and 9,448, or 48.4%, were still alive. The table below shows that the proportion of diagnosed AIDS cases that are still living in the District is similar to the national estimate (47.9%).

#### **Washington, DC AIDS Cases through December 31<sup>st</sup>, 2009**

Cumulative AIDS Cases	19,525	
Cumulative Deaths	10,077	51.6%
Living AIDS Cases	9,448	48.4%

#### **United States AIDS Cases through December 31<sup>st</sup>, 2009<sup>†</sup>**

Cumulative AIDS Cases	1,113,971	
Cumulative Deaths	579,931	52.1%
Living AIDS Cases	534,040	47.9%

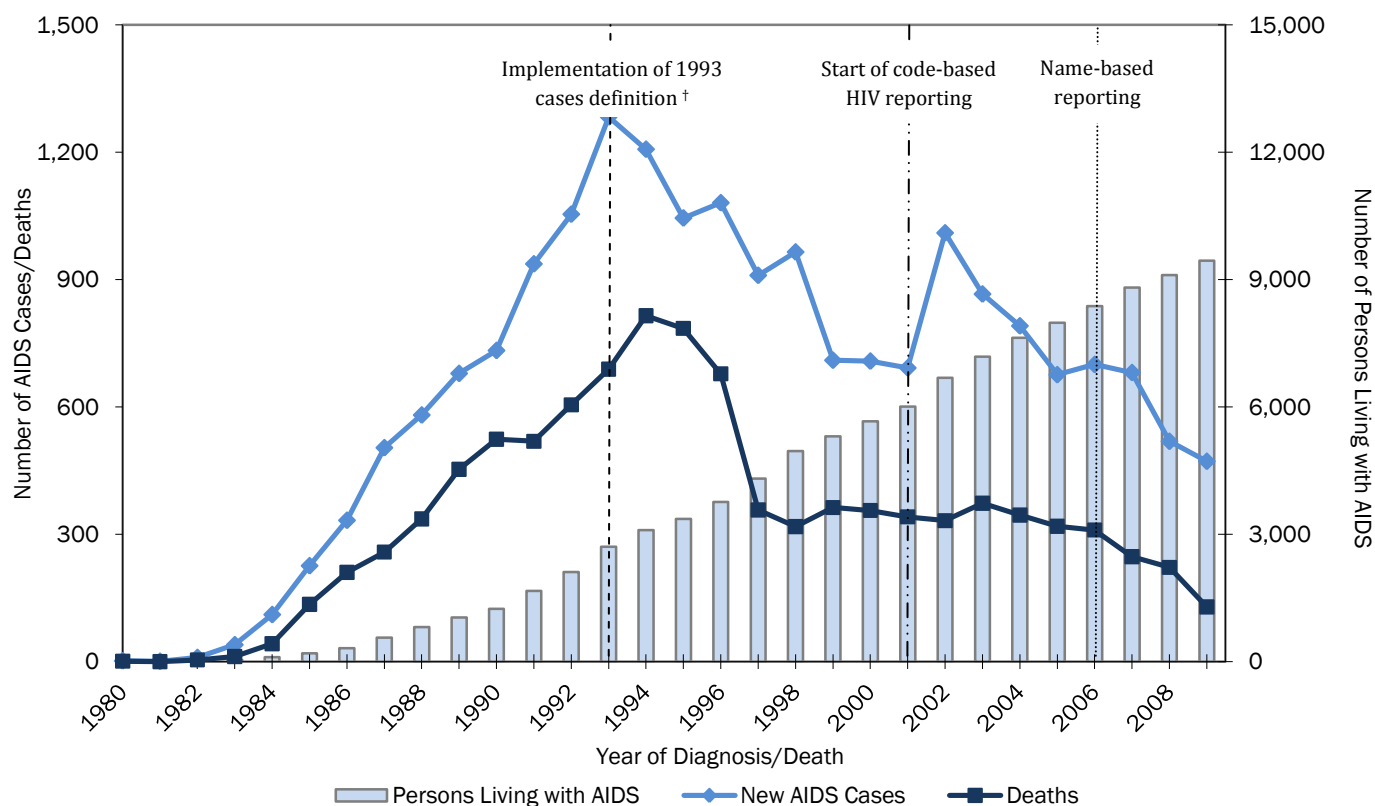
<sup>†</sup>Source: CDC HIV/AIDS Surveillance Report, 2009, vol 21

The majority (98.9%) of living AIDS cases reported above were among adults and adolescents. Approximately 73.0% of these cases were men and 79.4% were among blacks. Black men and women have been disproportionately affected by AIDS in the District. Black men accounted for 74.6% of cases among District men and black women accounted for 92.2% of cases among District women. Approximately two-thirds (69.1%) of adults and adolescents living with AIDS in the District were diagnosed between the ages of 30 and 49. MSM (38.5%) was the most commonly reported mode of transmission among living AIDS cases, followed by heterosexual contact (26.1%), and injection drug use (21.1%).

Between January 1, 2005 and December 31, 2009, 3,030 new AIDS cases were diagnosed among District residents. Consistent with previous epidemiologic profiles, blacks account for the overwhelming majority (83.7%) of new AIDS diagnoses. More than half of these cases were male (67.7%) and between 30-49 years of age (61.0%). The leading mode of transmission among new AIDS cases was heterosexual contact (31.8%), followed closely by MSM sexual contact (29.7%). There was also a substantial reduction in the proportion of new cases attributed to injection drug use. In 2005 27.7% of newly diagnosed cases were attributed to injection drug use while in 2009 8.3% of newly diagnosed cases were attributed to this mode.

### Detailed Description

The following tables, figures, and data points contain a detailed description of the AIDS epidemic in the District. AIDS case surveillance has been conducted in the District since 1985. Over the years, the decline in the number of newly diagnosed AIDS cases has been influenced by the advent of medications to treat HIV. These medications have also had an impact on AIDS-related mortality, resulting in fewer people dying due to complications from HIV/AIDS. Therefore the number of people living with AIDS continues to increase due to longer survival times and not exclusively as a result of more AIDS diagnoses. The figure below summarizes AIDS diagnoses, deaths, and prevalence since 1980.

**Figure 8. AIDS Cases, Deaths, and Prevalence, District of Columbia, 1980-2009**

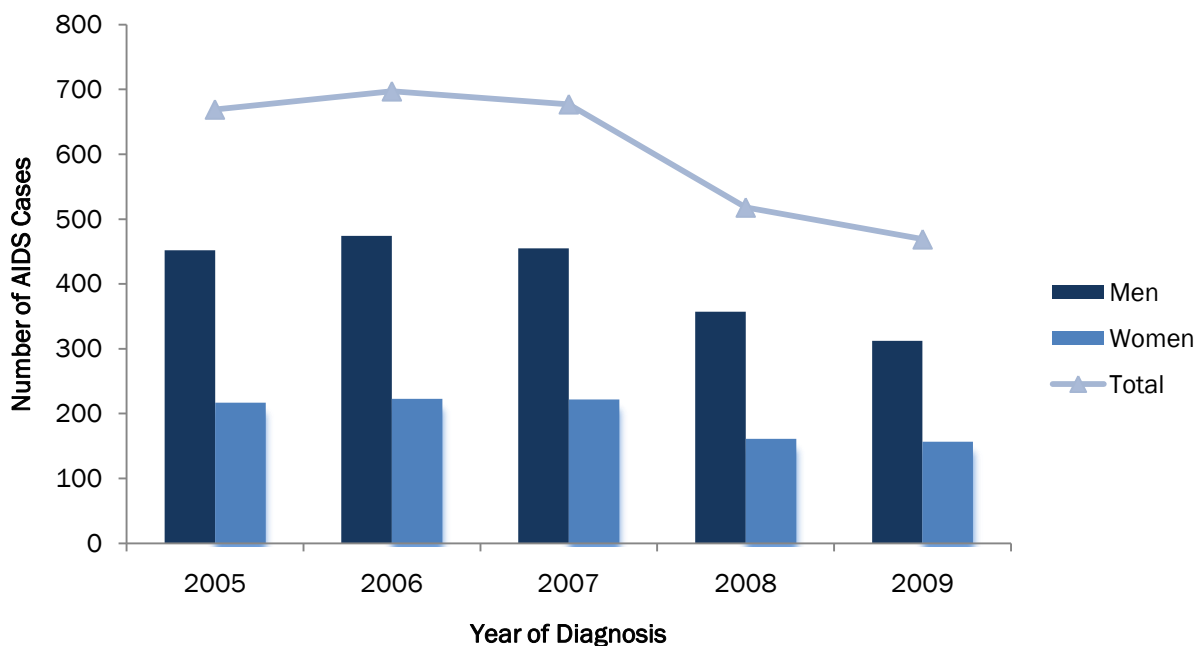
<sup>†</sup>Effective January 1, 1993, the CDC surveillance case definition for AIDS was expanded to include all HIV-infected persons with CD4 counts of < 200 cells/uL or a CD4 percentage of <14. In addition to retaining the 23 clinical conditions in the previous AIDS surveillance definition, the expanded definition includes pulmonary tuberculosis (TB), recurrent pneumonia, and invasive cervical cancer. The expanded definition also requires laboratory confirmation of HIV infection in persons with a CD4 count <200 cells/uL or with one of the added conditions.

- As of December 31, 2009, 19,525 cases of AIDS had been diagnosed and reported in the District since the beginning of the epidemic in the early 1980s.
- Overall, the total number of new AIDS cases has declined since 1993, when it reached its peak at the implementation of the new case definition for AIDS.
- The number of deaths significantly declined starting in the late 1990s, which coincided with the introduction of highly active antiretroviral treatment (HAART).
- By the end of 2009, there were 9,448 persons diagnosed and presumed to be living with AIDS in the District.

### New AIDS Diagnoses in the District

The following tables and figures depict trends in new AIDS diagnoses between 2005 and 2009.

**Figure 9. Number of Newly Diagnosed AIDS Cases by Sex, District of Columbia, 2005-2009**



- The number of AIDS diagnoses in the District decreased by 30% from 2005 to 2009. This trend may be attributed to expanded HIV testing whereby people living with HIV/AIDS are diagnosed and linked to care earlier which helps prevent the progression of disease.

**Table 5. Newly Reported AIDS Cases among Adults and Adolescents by Year of Diagnosis, Sex, Race/Ethnicity, Age, and Mode of Transmission, District of Columbia, 2005-2009**

	2005		2006		2007		2008		2009		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
<b>Sex</b>												
Male	452	67.6	474	68.0	455	67.2	357	68.9	312	66.5	2,050	67.7
Female	217	32.4	223	32.0	222	32.8	161	31.1	157	33.5	980	32.3
<b>Total</b>	<b>669</b>	<b>100.0</b>	<b>697</b>	<b>100.0</b>	<b>677</b>	<b>100.0</b>	<b>518</b>	<b>100.0</b>	<b>469</b>	<b>100.0</b>	<b>3,030</b>	<b>100.0</b>
<b>Race/Ethnicity</b>												
White	57	8.5	63	9.0	54	8.0	59	11.4	45	9.6	278	9.2
Black	554	82.8	598	85.8	577	85.2	424	81.9	383	81.7	2,536	83.7
Hispanic	42	6.3	28	4.0	35	5.2	20	3.9	25	5.3	150	5.0
Other*	16	2.4	8	1.2	11	1.6	15	2.9	16	3.4	66	2.2
<b>Total</b>	<b>669</b>	<b>100.0</b>	<b>697</b>	<b>100.0</b>	<b>677</b>	<b>100.0</b>	<b>518</b>	<b>100.0</b>	<b>469</b>	<b>100.0</b>	<b>3,030</b>	<b>100.0</b>
<b>Age at Diagnosis</b>												
13-19	6	0.9	6	0.9	9	1.3	9	1.7	5	1.1	35	1.2
20-29	92	13.8	91	13.1	88	13.0	77	14.9	75	16.0	423	14.0
30-39	200	29.9	180	25.8	170	25.1	134	25.9	116	24.7	800	26.4
40-49	243	36.3	251	36.0	246	36.3	159	30.7	149	31.8	1,048	34.6
50-59	92	13.8	134	19.2	124	18.3	95	18.3	92	19.6	537	17.7
≥60	36	5.4	35	5.0	40	5.9	44	8.5	32	6.8	187	6.2
<b>Total</b>	<b>669</b>	<b>100.0</b>	<b>697</b>	<b>100.0</b>	<b>677</b>	<b>100.0</b>	<b>518</b>	<b>100.0</b>	<b>469</b>	<b>100.0</b>	<b>3,030</b>	<b>100.0</b>

	2005		2006		2007		2008		2009		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
<b>Mode of Transmission</b>												
MSM	169	25.3	216	31.0	224	33.1	155	29.9	135	28.8	899	29.7
IDU	185	27.7	138	19.8	127	18.8	67	12.9	39	8.3	556	18.4
MSM/IDU	31	4.6	33	4.7	28	4.1	18	3.5	8	1.7	118	3.9
Heterosexual contact	207	30.9	239	34.3	195	28.8	164	31.7	157	33.5	962	31.8
Risk not identified	77	11.5	70	10.0	102	15.1	114	22.0	130	27.7	493	16.3
Other**	<3	–	<3	–	<3	–	<3	–	<3	–	<3	–
<b>Total</b>	<b>669</b>	<b>100.0</b>	<b>697</b>	<b>100.0</b>	<b>677</b>	<b>100.0</b>	<b>518</b>	<b>100.0</b>	<b>469</b>	<b>100.0</b>	<b>3,030</b>	<b>100.0</b>
<b>Male</b>												
MSM	169	37.4	216	45.6	224	49.2	155	43.4	135	43.3	899	43.9
IDU	112	24.8	70	14.8	68	15.0	40	11.2	24	7.7	314	15.3
MSM/IDU	31	6.9	33	7.0	28	6.2	18	5.0	8	2.6	118	5.8
Heterosexual contact	88	19.5	102	21.5	67	14.7	72	20.2	62	19.9	391	19.1
Risk not identified	52	11.5	53	11.2	67	14.7	72	20.2	83	26.6	327	16.0
Other**	<3	–	<3	–	<3	–	<3	–	<3	–	<3	–
<b>Subtotal</b>	<b>452</b>	<b>100.0</b>	<b>474</b>	<b>100.0</b>	<b>455</b>	<b>100.0</b>	<b>357</b>	<b>100.0</b>	<b>312</b>	<b>100.0</b>	<b>2,050</b>	<b>100.0</b>
<b>Female</b>												
IDU	73	33.6	68	30.5	59	26.6	27	16.8	15	9.6	242	24.7
Heterosexual	119	54.8	137	61.4	128	57.7	92	57.1	95	60.5	571	58.3
Risk not identified	25	11.5	17	7.6	35	15.8	42	26.1	47	29.9	166	16.9
Other**	<3	–	<3	–	<3	–	<3	–	<3	–	<3	–
<b>Subtotal</b>	<b>217</b>	<b>100.0</b>	<b>223</b>	<b>100.0</b>	<b>222</b>	<b>100.0</b>	<b>161</b>	<b>100.0</b>	<b>157</b>	<b>100.0</b>	<b>980</b>	<b>100.0</b>

\*Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiian, Pacific Islanders, and Unknowns.

\*\* Other mode of transmission includes hemophilia, blood transfusion, occupational exposure (health care workers) and perinatal.

- From 2005 to 2009, there were 3,030 newly reported AIDS diagnoses. Among these cases, men (67.7%) comprised a larger proportion than women (32.3%).
- Heterosexual contact was the leading mode of transmission among newly reported AIDS cases (33.5%) in all years except 2007 when the leading mode of transmission was MSM.
- There was also a substantial reduction in injection drug use as the mode of transmission from 27.7% in 2005 to 8.3% in 2009.
- The proportion of AIDS cases diagnosed among those 50 years and older has steadily increased since 2005. In 2005 19.2% of newly diagnosed AIDS cases were 50 years and older and by 2009 this increased to 26.4%.
- Blacks consistently represented a higher proportion of newly reported AIDS cases than any other racial group, i.e. blacks made up more than 80% of new AIDS cases each year from 2005 to 2009.
- Among men, 43.9% of newly reported AIDS diagnoses were among MSM over the last 5 years. Also among men, 19.1% of newly reported AIDS diagnoses were attributed to heterosexual contact.
- Among women, more than half (58.3%) of newly reported AIDS cases were attributed to heterosexual contact. IDU remains the second leading mode of transmission in women (24.7%).

**Table 6. Newly Reported AIDS Cases among Adults and Adolescents by Sex, Race/Ethnicity, Mode of Transmission, and Age at Diagnosis, District of Columbia, 2005-2009**

	White		Black		Hispanic		Other*		Total	
	N	%	N	%	N	%	N	%	N	%
<b>Sex</b>										
Male	268	96.4	1,620	63.9	110	73.3	52	78.8	2,050	67.7
Female	10	3.6	916	36.1	40	26.7	14	21.2	980	32.3
Total	278	100.0	2,536	100.0	150	100.0	66	100.0	3,030	100.0
<b>Mode of Transmission</b>										
MSM	209	75.2	616	24.3	48	32.0	26	39.4	899	29.7
IDU	5	1.8	526	20.7	18	12.0	7	10.6	556	18.3
MSM/IDU	16	5.8	93	3.7	5	3.3	4	6.1	118	3.9
Heterosexual Contact	16	5.8	871	34.3	56	37.3	19	28.8	962	31.7
RNI/Unknown	32	11.5	428	16.9	23	15.3	10	15.2	493	16.3
Other**	<3	--	<3	--	<3	--	<3	--	<3	--
Total	278	100.0	2,536	100.0	150	100.0	66	100.0	3,030	100.0
<b>Male</b>										
MSM	209	78.0	616	38.0	48	43.6	26	50.0	899	43.9
IDU	5	1.9	293	18.1	12	10.9	4	7.7	314	15.3
MSM/IDU	16	6.0	93	5.7	5	4.5	4	7.7	118	5.8
Heterosexual Contact	8	3.0	347	21.4	28	25.5	8	15.4	391	19.1
RNI/Unknown	30	11.2	270	16.7	17	15.5	10	19.2	327	16.0
Other**	<3	--	<3	--	<3	--	<3	--	<3	--
Subtotal	268	100.0	1,620	100.0	110	100.0	52	100.0	2,050	100.0
<b>Female</b>										
IDU	<3	--	233	25.4	6	15.0	3	21.4	242	24.7
Heterosexual Contact	8	80.0	524	57.2	28	70.0	11	78.6	571	58.3
RNI/Unknown	<3	--	158	17.2	6	15.0	<3	--	166	16.9
Other*	<3	--	<3	--	<3	--	<3	--	<3	--
Subtotal	10	100.0	916	100.0	40	100.0	14	100.0	980	100.0
<b>Age at Diagnosis</b>										
13-19	<3	--	31	1.2	<3	--	<3	--	35	1.2
20-29	25	9.0	363	14.3	33	22.0	<3	--	423	14.0
30-39	93	33.5	642	25.3	48	32.0	17	25.8	800	26.4
40-49	92	33.1	900	35.5	35	23.3	21	31.8	1,048	34.6
50-59	55	19.8	443	17.5	24	16.0	15	22.7	537	17.7
≥ 60	11	4.0	157	6.2	9	6.0	10	15.2	187	6.2
Total	278	100.0	2,536	100.0	150	100.0	66	100.0	3,030	100.0

\*Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiians, Pacific Islanders, and unknown races.

\*\*Other mode of transmission includes hemophilia, blood transfusion, occupational exposure (healthcare workers), and perinatal.

- The proportion of 20-29 year old Hispanics newly diagnosed with AIDS (22.0%) was higher than among whites (9.0%) and blacks (14.3%).
- Between 2005 and 2009, 53.5% of newly reported AIDS cases were among black men, followed by black women at 30.2%.
- The proportion of newly diagnosed AIDS cases among black women (36.1%) was greater than in any other racial/ethnic group of women (3.6% of whites, 26.7% of Hispanics, and 21.2% of those classified as other race).
- MSM continued to be the leading mode of transmission among white males (78.0%) and among all whites (75.2%) newly diagnosed with AIDS.
- Heterosexual contact was the leading mode of transmission among blacks (34.3%) overall and the second leading mode of transmission among black men (21.3%) newly diagnosed with AIDS.



- MSM was the leading mode of transmission among Hispanic men (43.6%), followed by heterosexual contact (25.5%). Seventy percent (70.0%) of AIDS cases among Hispanic women are due to heterosexual contact.
- Heterosexual contact remained the leading mode of transmission in women across all races. However, among black women, IDU still accounted for 25.4% of newly reported AIDS cases.

### Persons Living with AIDS in the District

**Table 7. Adults and Adolescents Living with AIDS by Sex, Race/Ethnicity, and Mode of Transmission, District of Columbia, 2009**

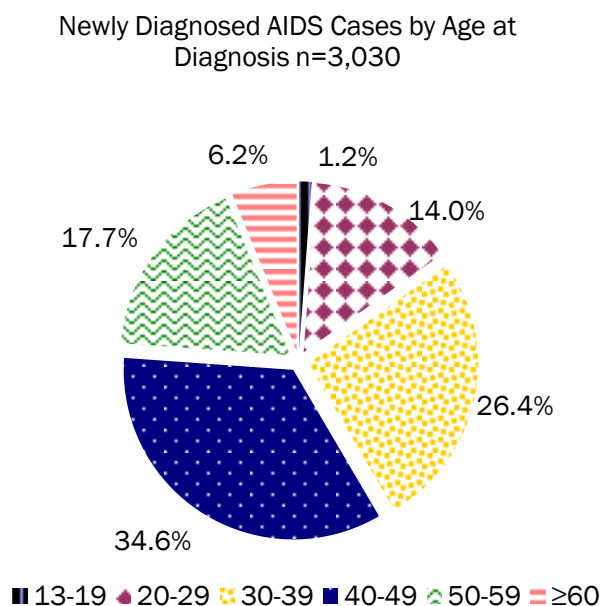
	White		Black		Hispanic		Other*		Total	
	N	%	N	%	N	%	N	%	N	%
<b>Sex</b>										
Male	1,208	94.1	5,089	68.6	410	82.8	109	76.2	6,816	73.0
Female	76	5.9	2,332	31.4	85	17.2	34	23.8	2,527	27.0
<b>Total</b>	<b>1,284</b>	<b>100.0</b>	<b>7,421</b>	<b>100.0</b>	<b>495</b>	<b>100.0</b>	<b>143</b>	<b>100.0</b>	<b>9,343</b>	<b>100.0</b>
<b>Mode of Transmission</b>										
MSM	1,029	80.1	2,264	30.5	242	48.9	62	43.4	3,597	38.5
IDU	56	4.4	1,860	25.1	44	8.9	18	12.6	1,978	21.2
MSM/IDU	51	4.0	333	4.5	19	3.8	4	2.8	407	4.4
Heterosexual Contact	68	5.3	2,197	29.6	138	27.9	34	23.8	2,437	26.1
RNI/Unknown	75	5.8	747	10.1	50	10.1	25	17.5	897	9.6
Other**	5	0.4	20	0.3	<3	--	<3	--	27	0.3
<b>Total</b>	<b>1,284</b>	<b>100.0</b>	<b>7,421</b>	<b>100.0</b>	<b>495</b>	<b>100.0</b>	<b>143</b>	<b>100.0</b>	<b>9,343</b>	<b>100.0</b>
<b>Males</b>										
MSM	1,029	85.2	2,264	44.5	242	59.0	62	56.9	3,597	52.8
IDU	28	2.3	1,103	21.7	31	7.6	8	7.3	1,170	17.2
MSM/IDU	51	4.2	333	6.5	19	4.6	4	3.7	407	6.0
Heterosexual Contact	27	2.2	901	17.7	75	18.3	12	11.0	1,015	14.9
RNI/Unknown	68	5.6	478	9.4	41	10.0	23	21.1	610	8.9
Other**	5	0.4	10	0.2	<3	--	<3	--	17	0.2
<b>Total</b>	<b>1,208</b>	<b>100.0</b>	<b>5,089</b>	<b>100.0</b>	<b>410</b>	<b>100.0</b>	<b>109</b>	<b>100.0</b>	<b>6,816</b>	<b>100.0</b>
<b>Females</b>										
IDU	28	36.8	757	32.5	13	15.3	10	29.4	808	32.0
Heterosexual Contact	41	53.9	1,296	55.6	63	74.1	22	64.7	1,422	56.3
RNI/Unknown	7	9.2	269	11.5	9	10.6	<3	--	287	11.4
Other**	<3	--	10	0.4	<3	--	<3	--	10	0.4
<b>Total</b>	<b>76</b>	<b>100.0</b>	<b>2,332</b>	<b>100.0</b>	<b>85</b>	<b>100.0</b>	<b>34</b>	<b>100.0</b>	<b>2,527</b>	<b>100.0</b>

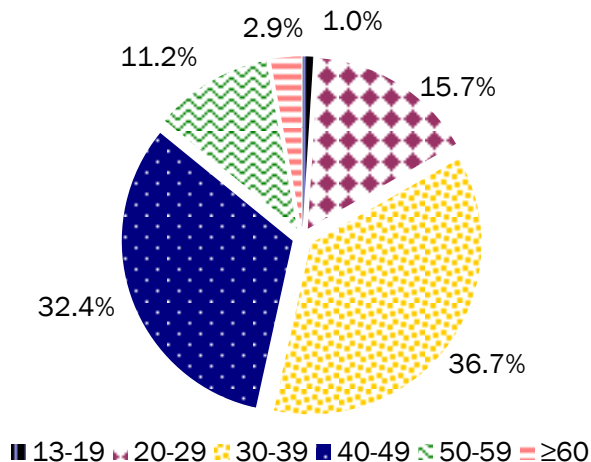
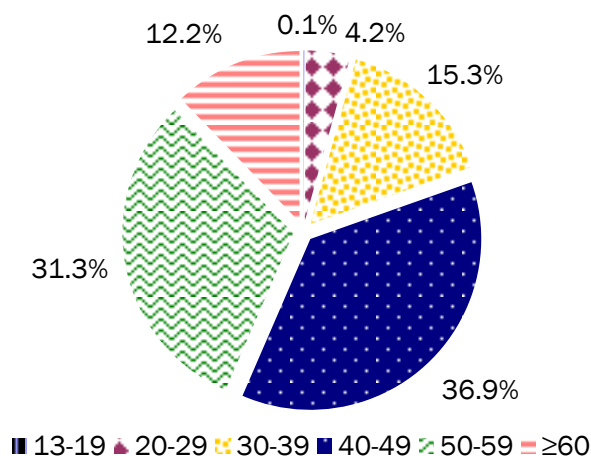
- Almost three quarters (73.0%) of adults and adolescents living with AIDS were men and the majority of cases in each racial group were also men.
- Among women, there are more black women living with AIDS (n=2,332) than all other racial groups combined (n=195).
- Across all racial groups, the leading mode of transmission among living AIDS cases was MSM. However among whites, MSM transmission accounted for 80.1% of cases. This proportion was lower among black cases (30.5%) and Hispanic cases (48.9%). Heterosexual transmission was more common among blacks (29.6%) and Hispanics (27.9%) than among whites (5.3%).
- Among District women, the leading mode of transmission for AIDS cases was heterosexual contact (56.3%), followed by injection drug use (32.0%).

**Table 8. Adults and Adolescents Living with AIDS by Race/Ethnicity, Age at Diagnosis and Current Age, District of Columbia, 2009**

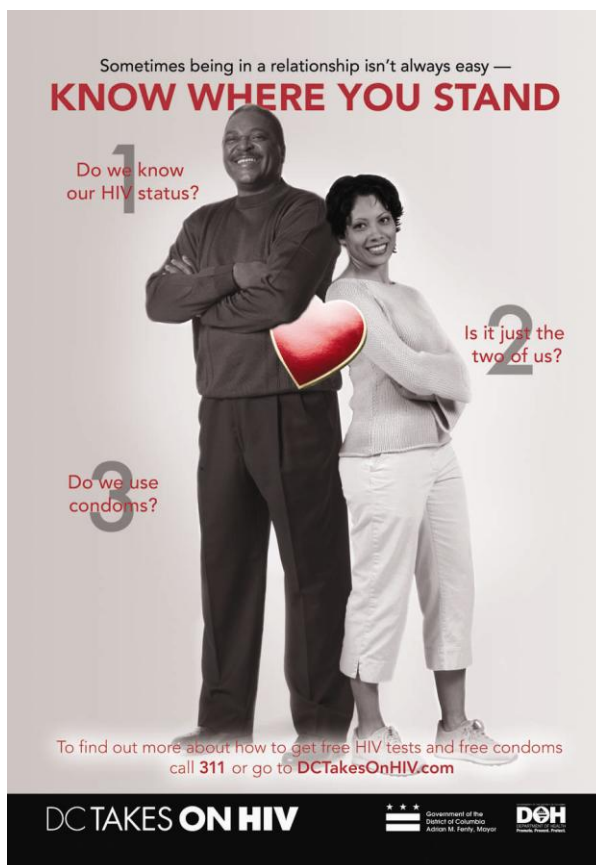
	White		Black		Hispanic		Other*		Total	
	N	%	N	%	N	%	N	%	N	%
<b>Age at Diagnosis</b>										
13-19	3	0.2	85	1.2	7	1.4	<3	0.7	96	1.0
20-29	176	13.7	1,151	15.5	122	24.7	20	14.0	1,469	15.7
30-39	551	42.9	2,640	35.6	188	38.0	48	33.6	3,427	36.7
40-49	392	30.5	2,471	33.3	118	23.8	48	33.6	3,029	32.4
50-59	143	11.1	841	11.3	48	9.7	17	11.9	1,049	11.2
≥60	19	1.5	233	3.1	12	2.4	9	6.2	273	2.9
<b>Total</b>	<b>1,284</b>	<b>100.0</b>	<b>7,421</b>	<b>100.0</b>	<b>495</b>	<b>100.0</b>	<b>143</b>	<b>100.0</b>	<b>9,343</b>	<b>100.0</b>
<b>Current Age</b>										
13-19	<3	--	11	0.2	<3	--	<3	--	12	0.1
20-29	21	1.6	335	4.5	31	6.3	3	2.1	390	4.2
30-39	160	12.5	1,128	15.2	121	24.4	22	15.4	1,431	15.3
40-49	481	37.5	2,733	36.8	182	36.8	51	35.7	3,447	36.9
50-59	417	32.5	2,356	31.8	109	22.0	40	28.0	2,922	31.3
≥60	205	16.0	858	11.6	52	10.5	26	18.2	1,141	12.2
<b>Total</b>	<b>1,284</b>	<b>100.0</b>	<b>7,421</b>	<b>100.0</b>	<b>495</b>	<b>100.0</b>	<b>143</b>	<b>100.0</b>	<b>9,343</b>	<b>100.0</b>

- Although more than two-thirds (69.1%) of AIDS cases were diagnosed between 30-49 years of age, more than two-thirds (68.2%) were between 40-59 years of age in 2009.
- More than half (61.2%) of Hispanics living with AIDS were between 30 and 49 years of age in 2009, whereas the majority of white and black AIDS cases (86.0% and 80.2%, respectively) were 40 years of age and older.

**Figure 10. Proportion of Newly Reported AIDS Cases by Age of Diagnosis and Persons Living with AIDS by Age at Diagnosis and Current Age in the District of Columbia, 2009**

Living AIDS Cases by Age at Diagnosis  
n=9,343Living AIDS Cases by Current Age  
n=9,343

- More than half (61.0%) of newly diagnosed AIDS cases were between 30-49 years of age at diagnosis.
- At the end of 2009, more than two-thirds (68.2%) of people living with AIDS were between 40-59 years of age.



## Section IV. HIV Disease Status, Survival, and Mortality

After a person is diagnosed with HIV, their CD4 count is routinely measured, which indicates how severely immune-compromised they might be. A CD4 count of less than 200 is considered an AIDS diagnosis, increasing the risk for severe illnesses such as opportunistic infections. In addition, a person's CD4 count and viral load, the amount of virus in a person's body, are used to determine whether a person should be started on antiretroviral therapy.

This section of the report focuses on select indicators related to a person's HIV/AIDS disease status. Laboratory measures and indicators such as CD4 counts and viral loads, time from HIV to AIDS diagnosis and the development of opportunistic infections are used to provide a glimpse of when people are being diagnosed in the course of the illness, when they are accessing medical care, and how suppressed their immune systems are. With improved reporting of laboratory data through the electronic laboratory reporting system, we are able to obtain a more complete picture of these HIV disease status indicators. This section also provides information on how long persons with HIV/AIDS are surviving after diagnosis, how many have died, and cause of death. This information is available through death certificate reviews.

### Summary

To better understand how long it takes for newly diagnosed persons to seek and access HIV-specific medical care, we measured the time between a person's initial HIV diagnosis and their first CD4 and/or viral load test reported to the HIV/AIDS surveillance system. CD4 counts, CD4 percentages, and viral load tests are laboratory tests that are generally measured during the initial medical assessment or early in the course of HIV care and routinely thereafter. Almost all (96.4%) HIV cases diagnosed in 2009 entered care within 12 months of their initial diagnosis and three quarters (75.6%) entered care within 3 months. The proportion of cases entering care has steadily increased since 2005, when only 58.0% cases entered care within 12 months of their initial diagnosis.

Since 2005, there has been a steady increase in the median CD4 count at diagnosis, with a 35.7% increase between 2005 and 2009. This trend may be explained by the increased emphasis on routine HIV testing city-wide and earlier entry into care. In addition, the continued transition to confidential name-based HIV reporting and improved laboratory reporting may also explain these findings.

To better understand the burden of severe disease and disease progression, we examined the number of AIDS cases that had their first HIV diagnosis within 12 months of their AIDS diagnosis ("late testers") as well as the number of people with HIV who progressed to AIDS ("HIV disease progression"). Measures of late testing and HIV disease progression allow us to understand where opportunities for early routine testing and assistance with accessing and entering care may exist. Over the reporting period, there was a substantial decrease in the proportion of AIDS cases that were classified as late testers from 379 in 2005 to 185 in 2009. The number of newly diagnosed HIV cases that progressed to AIDS within 12 months of initial HIV diagnosis (HIV disease progression) has also decreased over time, from 491 in 2004 to 243 in 2008, a 50.5% decrease in the last five years.

Deaths among persons with HIV/AIDS, as reported to HAHSTA from the Office of Vital Statistics, have decreased since 2005. In 2005, 326 deaths occurred among those with HIV/AIDS in 2005. Almost half of these deaths (46.9%) were related to HIV disease. In 2008, 239 deaths occurred among those with HIV/AIDS and 63.6% of these were related to HIV disease. The increase in deaths related to HIV disease during this time period coincides with a substantial decrease in deaths due to unknown causes.

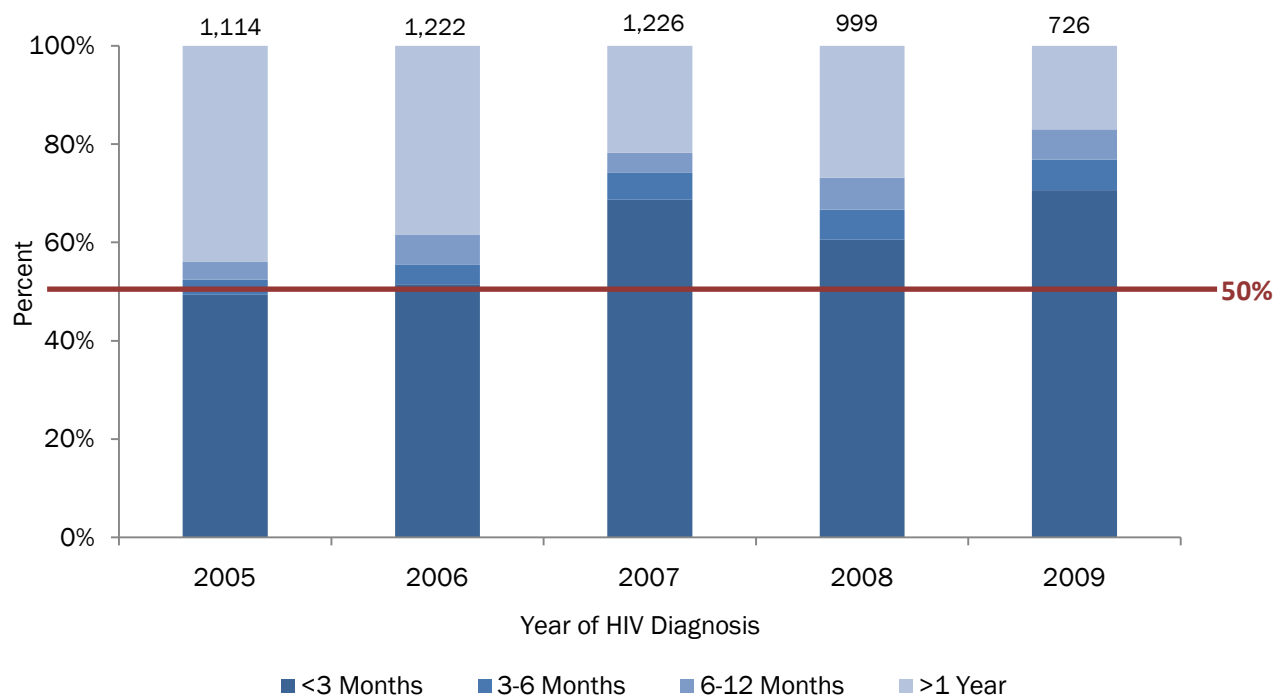
### Detailed Description of HIV Disease Status, Survival, and Mortality

Early entry into primary care may improve management of HIV disease by preventing the development of opportunistic infections and may reduce the spread of HIV by suppressing the amount of virus in the body. According to the U.S. Public Health Service Guidelines, CD4 cell counts and viral load tests are performed as part of routine HIV management. CD4 laboratory results reported to the surveillance system were used to assess whether District cases were accessing primary medical care and how long after their initial HIV diagnosis they received

services. Figure 11 shows the time from initial HIV diagnosis to first CD4 or viral load test.

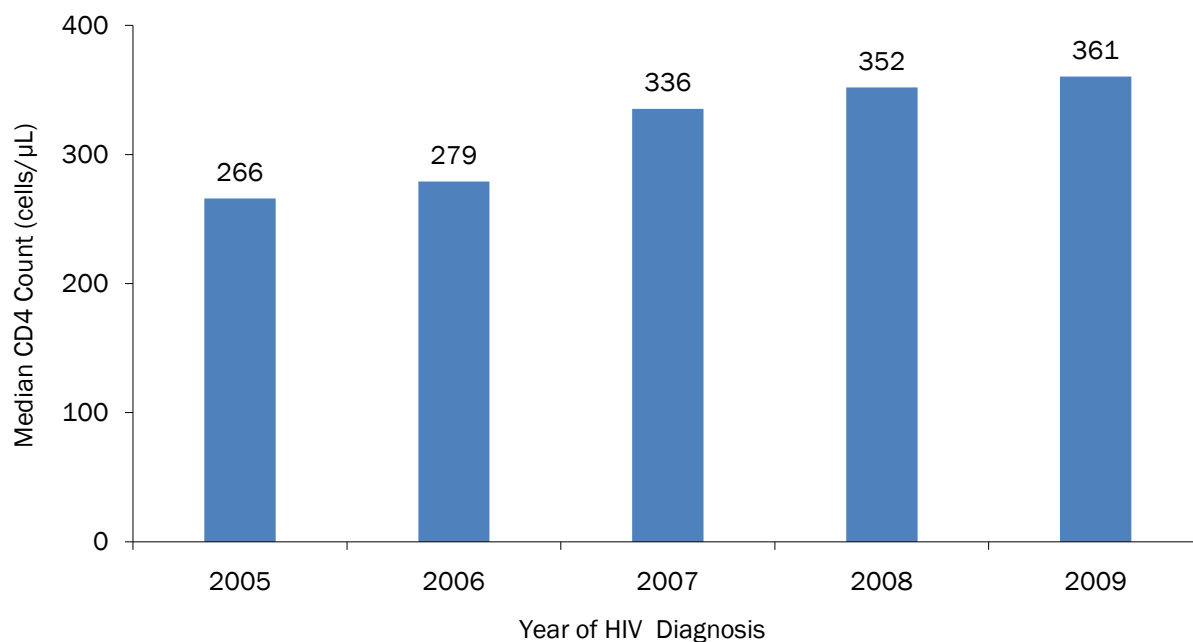
*Note: Incomplete reporting suggests that the data below underestimate the proportions entering care. As completeness of data continues to improve, future analyses will provide better estimates and also be able to measure retention in care over time.*

**Figure 11. Time Between HIV Initial Diagnosis and Entry into Care as Evidenced by First CD4 Count, Percentage or Viral Load Test among HIV/AIDS Cases by Year of HIV Diagnosis, District of Columbia, 2005-2009**



For persons with a CD4 test or viral load occurring more than one year after an HIV diagnosis, this percentage includes cases for whom a CD4 test or viral load has not yet been reported. Among 5,287 cases reported in this figure, 76.7% had a CD4 test or viral load reported to the surveillance system between 2005 and 2009.

- There were 5,287 people diagnosed with HIV/AIDS between 2005 and 2009 in the District of Columbia.
- The proportion of HIV/AIDS cases entering care within 3 months of their initial diagnosis increased by 43.1% between 2005 and 2009.

**Figure 12. Median CD4 Cell Count for HIV/AIDS Cases by Year of HIV Diagnosis, District of Columbia, 2005-2009**

- The median CD4 count among new HIV/AIDS diagnoses for which at least one CD4 count was reported (n=4,498) is presented by year of diagnosis above.
- There has been a steady increase in median CD4 count, with a 71.1% increase between 2004 and 2009. This trend may be explained by the increased emphasis on routine HIV testing city-wide and earlier entry into care. In addition, the continued transition to confidential name-based HIV reporting and improved laboratory reporting help to explain these findings.

#### Late Testers

DOH assessed the proportion of cases diagnosed with AIDS between 2005 and 2009 who's HIV diagnoses occurred within 12 months of their AIDS diagnosis in Table 9. These cases are referred to as *"late testers"*. This approach is the same as that presented in the 2008 and 2009 Epidemiology Annual Reports.

# TEST RESULTS

☐ **YOUR HIV TEST RESULT TODAY IS POSITIVE.**

This means:

- You can still have a healthy and productive life!
- HIV can be managed with proper treatment.
- You have been given an appointment to see an HIV specialist. It is VERY important that you go to that appointment.
- Follow your doctor's instructions carefully!
- Protect yourself and others! Use condoms!
- You and your medical provider should discuss testing your partner(s).
- Telling a friend or family member who can support helps!

***You are not alone! There are services available to help you.***

Government of the  
District of Columbia  
Adrian M. Fenty, Mayor

FOR MORE INFORMATION CONTACT  
THE HIV/AIDS ADMINISTRATION  
202-671-4900 • [WWW.DOH.DC.GOV/HIV](http://WWW.DOH.DC.GOV/HIV)

GOVERNMENT OF THE DISTRICT OF COLUMBIA  
**DOH**  
DEPARTMENT OF HEALTH  
*Prevent. Promote. Protect.*

**Table 9. Characteristics of Late Testers among Newly Diagnosed AIDS Cases, District of Columbia, 2005-2009**

	≥ 12 months after diagnosis of HIV		< 12 months after diagnosis of HIV (Late Testers)		Total
	N	%	N	%	
Year of AIDS Diagnosis					
2005	274	42.0	379	58.0	653
2006	266	40.7	387	59.3	653
2007	257	43.3	337	56.7	594
2008	217	46.7	248	53.3	465
2009	235	56.0	185	44.0	420
Total	1,249	44.8	1,536	55.2	2,785
Sex					
Male	813	43.3	1,065	56.7	1,878
Female	436	48.1	471	51.9	907
Total	1,249	44.8	1,536	55.2	2,785
Race/Ethnicity					
White	137	53.9	117	46.1	254
Black	1,038	44.4	1,299	55.6	2,337
Hispanic	50	36.5	87	63.5	137
Other*	24	42.1	33	57.9	57
Total	1,249	44.8	1,536	55.2	2,785
Mode of transmission					
MSM	386	46.3	448	53.7	834
IDU	274	52.9	244	47.1	518
MSM/IDU	66	58.9	46	41.1	112
Heterosexual contact	386	43.2	507	56.8	893
Risk not identified	136	31.9	291	68.1	427
Other**	<3	–	<3	–	<3
Total	1,249	44.8	1,536	55.2	2,785
Age at Diagnosis					
13-19	63	72.4	24	27.6	87
20-29	312	57.0	235	43.0	547
30-39	397	48.3	425	51.7	822
40-49	346	40.9	501	59.1	847
50-59	103	28.6	257	71.4	360
≥60	28	23.0	94	77.0	122
Total	1,249	44.8	1,536	55.2	2,785
Insurance at time of AIDS Diagnosis					
Public	626	49.6	636	50.4	1,262
Private	248	42.7	333	57.3	581
None	37	34.6	70	65.4	107
Unknown	338	40.5	497	59.5	835
Total	1,249	44.8	1,536	55.2	2,785
Country of Birth					
US	1,170	46.6	1,339	53.4	2,509
US Dependency	3	60.0	2	40.0	5
Outside of US	46	27.2	123	72.8	169
Unknown	30	29.4	72	70.6	102
Total	1,249	44.8	1,536	55.2	2,785
Initial AIDS Diagnosis					
CD4 Count < 200	1,002	47.4	1,114	52.6	2,116
Opportunistic infection	48	49.5	49	50.5	97
Low CD4 and OI	199	34.8	373	65.2	572
Total	1,249	44.8	1,536	55.2	2,785

\* Other race/ethnicity includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiians, Pacific Islanders, and unknown races.

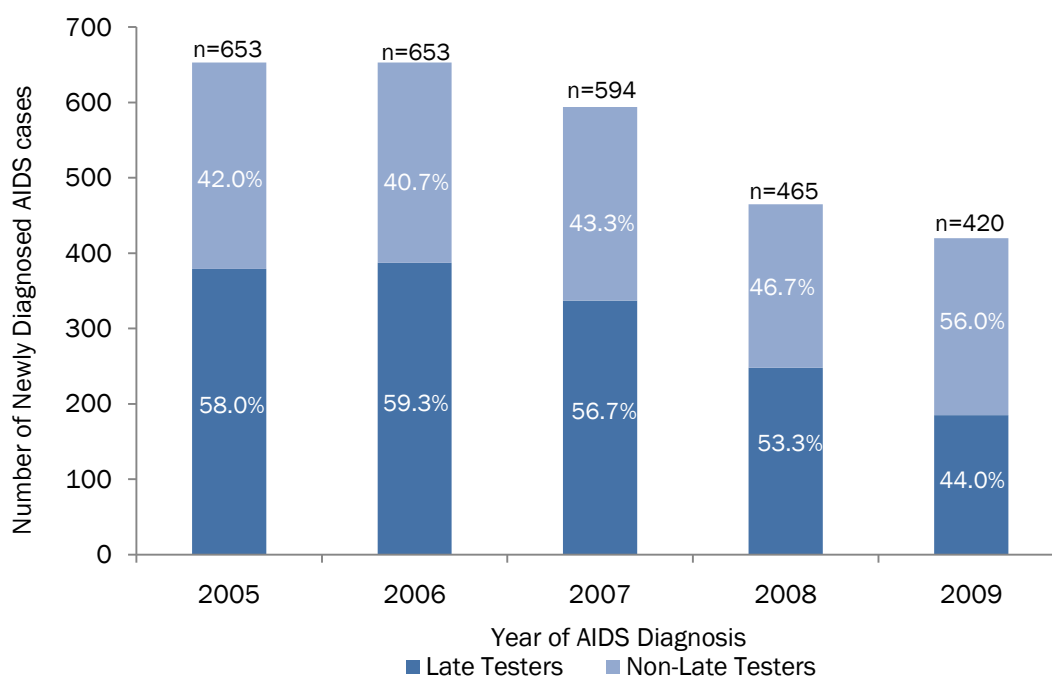
\*\* Other mode of transmission includes hemophilia, blood transfusion, occupational exposure (healthcare workers), and perinatal.



*Note: This table excludes 245 cases that are either missing an HIV diagnosis date or their AIDS diagnosis date was prior to the reported HIV diagnosis date.*

- Of the 2,785 AIDS cases diagnosed between 2005 and 2009 and with available data, 55.2% were late testers, meaning they progressed from HIV to AIDS in less than 12 months after their initial HIV diagnosis date.
- There was a substantial decrease in the proportion of AIDS cases that were classified as late testers from 58.0% in 2005 to 44.0% in 2009.
- Men (56.7%) and Hispanics (63.5%) had higher proportions of late testing. Persons 50 years of age and older at the time of diagnosis (71.4% among 50-59; 77.0% among 60 and older) also had higher proportions of late testing. This may reflect lower testing rates, lack of access to care, or inadequate care among these populations.

**Figure 13. Persons Newly Diagnosed with AIDS and Proportion of Late Testers by Year of AIDS Diagnosis, District of Columbia, 2004-2008**



- The number of newly diagnosed AIDS cases decreased from 653 in 2005 to 420 at the end of 2009, most likely due to increased testing efforts and earlier diagnosis and entry into care.
- The proportion of AIDS cases that were late testers decreased from 58.0 % in 2005 to 44.0% in 2009.

#### HIV Disease Progression

In the following tables and figures, we determined the proportion of HIV cases diagnosed with HIV between 2004 and 2008 who went on to develop AIDS within 12 months of their initial HIV diagnosis, after 12 months of their initial HIV diagnosis, and those who have not yet developed AIDS (known as “non-progressors”). This approach is one that is often used by other jurisdictions and the CDC to understand disease progression. Cases that were diagnosed in 2009 were excluded from this analysis because they did not have 12 full months of observation needed to classify their disease progression.

**Table 10. Progression from HIV to AIDS after a Diagnosis of HIV, by Selected Characteristics, District of Columbia, 2004-2008**

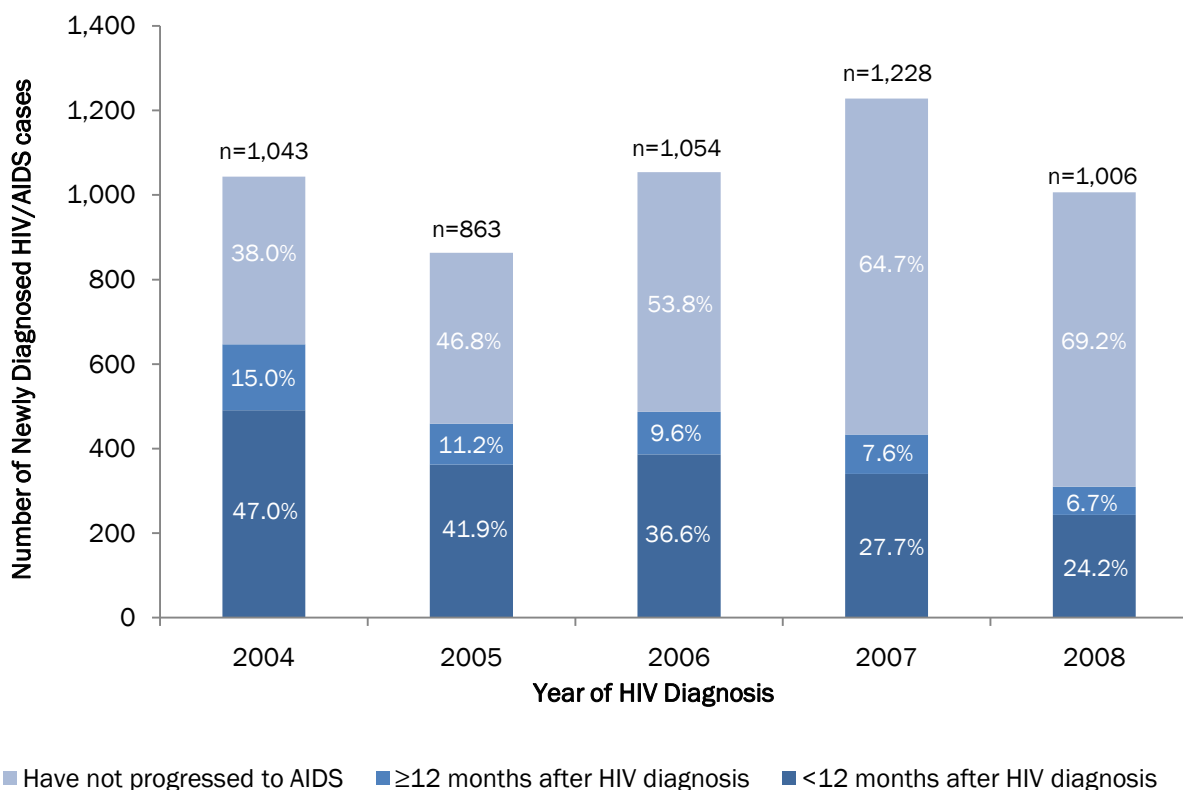
Characteristic	Non-progressors		≥ 12 months after diagnosis of HIV		< 12 months after diagnosis of HIV		Total
	N	%	N	%	N	%	
Year of HIV Diagnosis							
2004	396	38.0	156	15.0	491	47.1	1,043
2005	404	46.8	97	11.2	362	41.9	863
2006	567	53.8	101	9.6	386	36.6	1,054
2007	795	64.7	93	7.6	340	27.7	1,228
2008	696	69.2	67	6.7	243	24.2	1,006
Total	2,858	55.0	514	9.9	1,822	35.1	5,194
Sex							
Male	2,047	55.9	344	9.4	1,272	34.7	3,663
Female	811	53.0	170	11.1	550	35.9	1,531
Total	2,858	55.0	514	9.9	1,822	35.1	5,194
Race/Ethnicity							
White	558	74.0	48	6.4	148	19.6	754
Black	2,054	51.0	439	10.9	1,532	38.1	4,025
Hispanic	159	55.4	22	7.7	106	36.9	287
Other*	87	68.0	5	3.9	36	28.1	128
Total	2,858	55.0	514	9.9	1,822	35.1	5,194
Mode of transmission							
MSM	1,179	62.5	167	8.9	541	28.7	1,887
IDU	305	42.8	82	11.5	325	45.6	712
MSM/IDU	55	39.9	23	16.7	60	43.5	138
Heterosexual contact	815	51.7	171	10.9	590	37.4	1,576
Risk not identified	503	57.2	71	8.1	306	34.8	880
Other**	1	100.0	0	0.0	0	0.0	1
Total	2,858	55.0	514	9.9	1,822	35.1	5,194
Age at Diagnosis							
13-19	90	62.9	21	14.7	32	22.4	143
20-29	670	63.4	103	9.8	283	26.8	1,056
30-39	809	55.6	135	9.3	512	35.2	1,456
40-49	763	49.9	171	11.2	594	38.9	1,528
50-59	412	52.8	69	8.8	299	38.3	780
≥60	114	49.4	15	6.5	102	44.2	231
Total	2,858	55.0	514	9.9	1,822	35.1	5,194
Country of Birth							
US	2,520	54.4	468	10.1	1,645	35.5	4,633
US Dependency	8	61.5	2	15.4	3	23.1	13
Outside of US	143	49.1	23	7.9	125	43.0	291
Unknown	187	72.8	21	8.2	49	19.1	257
Total	2,858	55.0	514	9.9	1,822	35.1	5,194

\* Other race includes mixed race individuals, Asians, Alaska Natives, American Indians, Native Hawaiians, Pacific Islanders, and unknown races.

\*\* Other mode of transmission includes hemophilia, blood transfusion, occupational exposure (healthcare workers), and perinatal

- Of the 5,194 name-based HIV cases diagnosed between 2004 and 2008, 35.1% progressed from HIV to AIDS less than 12 months after their initial HIV diagnosis date.
- The proportion of cases that have progressed within 12 months has decreased over time from 47.1% in 2004 to 24.2% in 2008.
- Blacks (38.1%), Hispanics (36.9%), persons infected through IDU (45.6%), and MSM/IDU (43.5%) transmission had higher percentages of persons progressing to AIDS within 12 months. This may reflect lower testing rates, delays in access or inadequate care and treatment among these populations.

**Figure 14. Progression from HIV to AIDS after a Diagnosis of HIV, by Selected Characteristics, District of Columbia, 2004-2008**



- The proportion of people with HIV who have not progressed to AIDS increased from 38.0% in 2004 to 69.2% in 2008, an 82.1% increase in the last five years. This increase over time is most likely due to increased testing efforts and earlier diagnosis and entry into care. It also indicates both the benefit and need for continued routine screening.

#### AIDS Survival and Mortality

From 2005-2008, there were 1,180 deaths among adults and adolescents diagnosed with HIV/AIDS. Since 2004 the number of deaths among HIV/AIDS cases has decreased by 36.9%. The majority of deaths occurred among men and 87.5% of all deaths were among black District residents. Approximately 35% of deaths occurred in people 40 to 49 years old. There was a decrease in the number of deaths among whites over time, a trend that was also observed nationally. By mode of transmission, the largest proportion of deaths was among those with transmission attributed to IDU (33.1%), followed by heterosexual contact (26.9%), and MSM (22.5%). Among whites and Hispanics, the majority of deaths were among MSM. This is in contrast to blacks among which most deaths occurred among those infected through IDU.

Survival analysis showed that survival was greatest among Hispanics and whites in the 10 years after an initial AIDS diagnosis. It is also possible that some deaths had not yet been reported to the District, resulting in misclassification of some deceased patients as still being alive. However, this finding is consistent with national data.

**Table 11. HIV/AIDS Deaths Among Adults and Adolescents, by Year of Death, Sex, Race/Ethnicity, Mode of Transmission, and Age at Death, District of Columbia, 2005-2008**

	2005		2006		2007		2008		Cumulative Total	
	N	%	N	%	N	%	N	%	N	%
<b>Sex</b>										
Male	225	69.0	217	64.4	194	69.8	150	62.8	786	66.6
Female	101	31.0	120	35.6	84	30.2	89	37.2	394	33.4
<b>Total</b>	<b>326</b>	<b>100.0</b>	<b>337</b>	<b>100.0</b>	<b>278</b>	<b>100.0</b>	<b>239</b>	<b>100.0</b>	<b>1,180</b>	<b>100.0</b>
<b>Race/Ethnicity</b>										
White	27	8.3	17	5.0	12	4.3	12	5.0	68	5.8
Black	273	83.7	296	87.8	247	88.8	217	90.8	1,033	87.5
Hispanic	5	2.1	8	2.4	10	3.6	8	3.3	31	2.6
Other*	21	6.4	16	4.7	9	3.2	<3	--	48	4.1
<b>Total</b>	<b>326</b>	<b>100.0</b>	<b>337</b>	<b>100.0</b>	<b>278</b>	<b>100.0</b>	<b>239</b>	<b>100.0</b>	<b>1,180</b>	<b>100.0</b>
<b>Mode of Transmission</b>										
MSM	81	24.8	76	22.6	62	22.3	46	19.2	265	22.5
IDU	104	31.9	110	32.6	81	29.1	95	39.7	390	33.1
MSM/IDU	15	4.6	11	3.3	17	6.1	13	5.4	56	4.7
Heterosexual contact	82	25.2	101	30.0	78	28.1	56	23.4	317	26.9
RNI/Unknown	44	13.5	37	11.0	34	12.2	27	11.3	142	12.0
Other**	<3	--	<3	--	6	2.2	<3	--	10	0.8
<b>Total</b>	<b>326</b>	<b>100.0</b>	<b>337</b>	<b>100.0</b>	<b>278</b>	<b>100.0</b>	<b>239</b>	<b>100.0</b>	<b>1,180</b>	<b>100.0</b>
<b>Age at Death</b>										
13-19	<3	--	<3	--	<3	--	<3	--	6	0.5
20-29	8	2.5	15	4.5	12	4.3	9	3.8	46	3.9
30-39	53	16.3	57	16.9	37	13.3	27	11.3	190	16.1
40-49	126	38.7	114	33.8	102	36.7	74	31.0	422	35.8
50-59	96	29.4	95	28.2	81	29.1	92	38.5	347	29.4
≥60	43	13.2	55	16.3	44	15.8	35	14.6	169	14.3
<b>Total</b>	<b>326</b>	<b>100.0</b>	<b>337</b>	<b>100.0</b>	<b>278</b>	<b>100.0</b>	<b>239</b>	<b>100.0</b>	<b>1,180</b>	<b>100.0</b>

\*Other race includes multi-race individuals, Asian, American Indians, Alaska Natives, Native Hawaiians, Pacific Islanders, and unknown races.

\*\*Other mode of transmission includes hemophilia, blood transfusion, and occupational exposure (healthcare workers)

- There were 1,180 deaths among persons with HIV/AIDS between 2005 and 2008.
- The majority of deaths among persons with HIV/AIDS were among blacks (87.5%) and two-thirds were among men (66.6%).
- The number of deaths decreased from 374 in 2004 to 239 in 2008, a 36.1% decline.
- By mode of transmission, the largest proportion of deaths among persons with HIV/AIDS was among those with transmission attributed to IDU (33.1%), followed by heterosexual contact (26.9%), and MSM (22.5%).
- The State Center for Health Statistics, Center for Policy, Planning and Epidemiology within the DCDOH routinely examines causes of premature death among DC residents. The most recently compiled data, from 2007 death certificates, shows that HIV/AIDS is the third leading cause of premature death among DC residents. By age category, it was the second leading cause of premature death among DC residents aged 25-44 years old and third among 45-64 years in 2007.

**Table 12. HIV/AIDS Deaths among Adults and Adolescents, by Race/Ethnicity, Sex, Mode of Transmission, and Age at Death, District of Columbia, 2005-2008**

	White		Black		Hispanic		Other*		Total	
	N	%	N	%	N	%	N	%	N	%
<b>Sex</b>										
Male	66	97.1	663	64.2	22	71.0	35	72.9	786	66.6
Female	2	2.9	370	35.8	9	29.0	13	27.1	394	33.4
<b>Total</b>	<b>68</b>	<b>100.0</b>	<b>1,033</b>	<b>100.0</b>	<b>31</b>	<b>100.0</b>	<b>48</b>	<b>100.0</b>	<b>1,180</b>	<b>100.0</b>
<b>Mode of Transmission</b>										
MSM	47	69.1	187	18.1	13	41.9	18	37.5	265	22.5
IDU	5	7.4	367	35.5	6	19.4	12	25.0	390	33.1
MSM/IDU	3	4.4	51	4.9	<3	--	<3	--	56	4.7
Heterosexual contact	4	5.9	293	28.4	9	29.0	11	22.9	317	26.9
Risk not identified	9	13.2	125	12.1	<3	--	5	10.4	142	12.0
Other**	<3	--	10	1.0	<3	--	<3	--	10	0.8
<b>Total</b>	<b>68</b>	<b>100.0</b>	<b>1,033</b>	<b>100.0</b>	<b>31</b>	<b>100.0</b>	<b>48</b>	<b>100.0</b>	<b>1,180</b>	<b>100.0</b>
<b>Age at Death</b>										
13-19	<3	--	6	0.6	<3	--	<3	--	6	0.5
20-29	<3	--	42	4.1	<3	--	<3	--	46	3.9
30-39	16	23.5	161	15.6	5	16.1	8	16.7	190	16.1
40-49	24	35.3	367	35.5	10	32.3	21	43.8	422	35.8
50-59	20	29.4	307	29.7	8	25.8	12	25.0	347	29.4
≥60	7	10.3	150	14.5	7	22.6	5	10.4	169	14.3
<b>Total</b>	<b>68</b>	<b>100.0</b>	<b>1,033</b>	<b>100.0</b>	<b>31</b>	<b>100.0</b>	<b>48</b>	<b>100.0</b>	<b>1,180</b>	<b>100.0</b>

\*Other race includes multi-race individuals, Asian, American Indians, Alaska Natives, Native Hawaiians, Pacific Islanders, and unknown races.

\*\*Other mode of transmission includes hemophilia, blood transfusion, and occupational exposure (healthcare workers)

- During this four year period, men across every racial/ethnic group accounted for more than half of all deaths of persons with HIV/AIDS, ranging from 64.2% of blacks to 97.1% of whites.
- Among blacks, the largest proportion of deaths occurred among those whose HIV/AIDS was attributed to IDU (35.5%), followed by heterosexual contact (28.4%).
- Among whites, Hispanics, and those of other races however, the largest proportion of deaths was among those with risk attributed to MSM (69.1%, 41.9%, and 37.5% respectively).
- Among whites, blacks and those of other races, the greatest proportion of deaths occurred among individuals aged 40-59 years at the time of death.

**Table 13. Cause of Death among Adults and Adolescents with HIV/AIDS, by Year of Death, District of Columbia, 2005-2008**

	2005		2006		2007		2008		Total	
	N	%	N	%	N	%	N	%	N	%
<b>Cause of Death*</b>										
HIV-related Causes	153	46.9	158	46.9	135	48.6	152	63.6	598	50.7
Non-AIDS Defining Malignancies	15	4.6	22	6.5	23	8.3	15	6.3	75	6.4
Cardiovascular	17	5.2	26	7.7	27	9.7	16	6.7	86	7.3
Substance Abuse	2	0.6	1	0.3	3	1.1	0	0.0	6	0.5
Accidental Death	7	2.1	7	2.1	7	2.5	6	2.5	27	2.3
Other**	29	8.9	39	11.6	52	18.7	29	12.1	149	12.6
Unknown	103	31.6	84	24.9	31	11.2	21	8.8	239	20.3
<b>Total</b>	<b>326</b>	<b>100.0</b>	<b>337</b>	<b>100.0</b>	<b>278</b>	<b>100.0</b>	<b>239</b>	<b>100.0</b>	<b>1,180</b>	<b>100.0</b>

\*HIV-related causes include opportunistic infections and AIDS-defining cancers

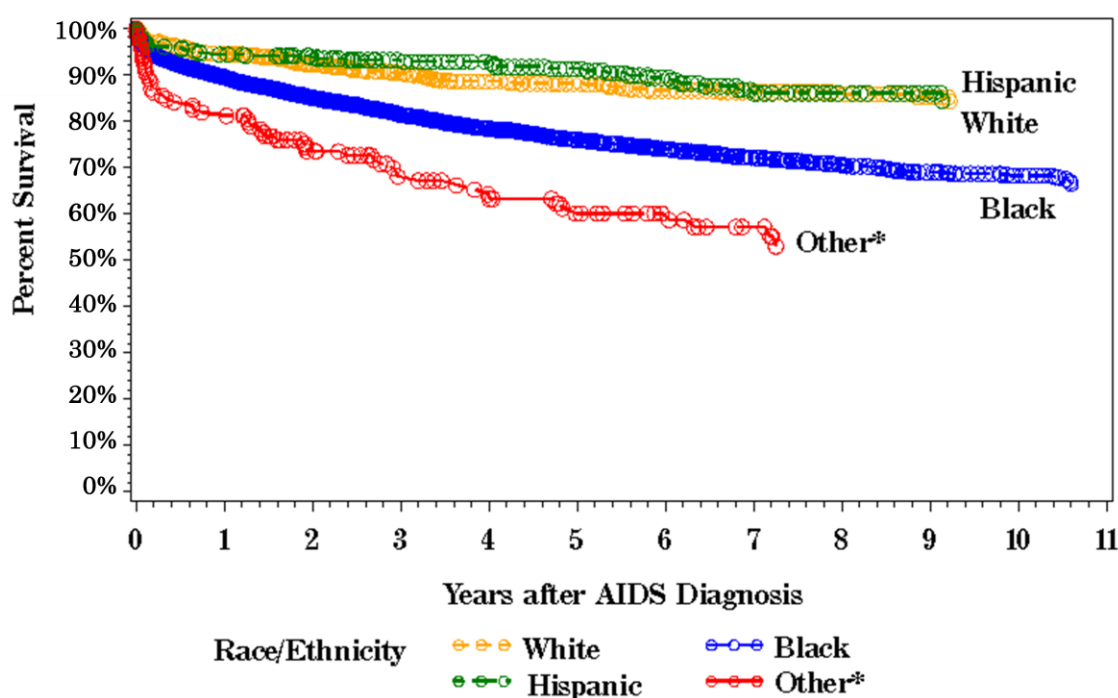
\*\*Other causes of death include homicide, suicide, pneumonia, and sudden death

- Half of deaths (50.7%) among persons with HIV/AIDS were due to HIV-related causes such as opportunistic infections and AIDS-defining cancers between 2005 and 2008.

- The underlying cause was unknown for 20.3% for deaths among those with HIV/AIDS however the proportion of deaths with unknown causes decreased from 31.6% in 2005 to 8.8% in 2008.
- Of the 941 cases with a known cause of death, the underlying cause was HIV related in nearly two thirds (63.6%) of deaths.

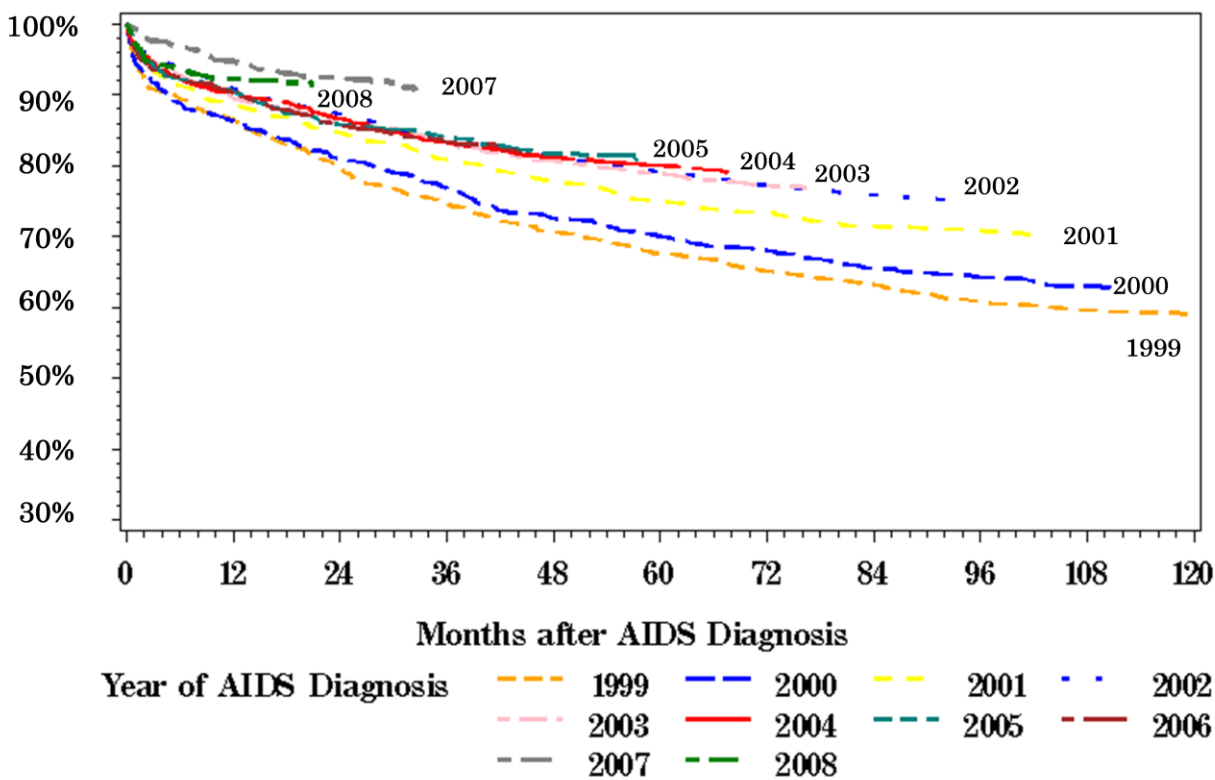
The following figures are Kaplan-Meier curves, which describe the survival of persons with AIDS by race/ethnicity and years after an initial AIDS diagnosis. Survival is defined as the estimated proportion of persons surviving a given length of time after diagnosis. Each trend line represents this proportion for each race/ethnicity starting at year 0 (100% alive at initial AIDS diagnosis) and follows them through a 10-year period.

**Figure 15. Proportion of Persons Surviving, by Years after AIDS Diagnosis and Race/Ethnicity, District of Columbia, 1999-2008**



\*Other includes American Indian/Alaskan Native, Native Hawaiian/Pacific Islander and two or more races

- Five years after an AIDS diagnosis, 76.2% of blacks, 88.4% of whites, and 91.1% of Hispanics were still alive. Ten years after an AIDS diagnosis, 68.4% of blacks, 84.5% of whites, 84.2% of Hispanics were still alive (Fig. 12).
- Among those diagnosed with AIDS, Hispanics and whites experienced the highest survival rates. Blacks and those of other races showed the lowest survival rate. Results must be interpreted with caution because the number of persons in the "other" and Hispanic racial/ethnic groups was small relative to those of blacks and whites. In addition, it is possible that some deaths were not reported to the District resulting in misclassification of some deceased patients as living.

**Figure 16. Proportion of Persons Surviving by Months after AIDS Diagnosis, District of Columbia, 1999-2008**

- Overall, persons diagnosed later in the post-HAART era (after 1996), survived longer than those diagnosed earlier in the era, and the probability of surviving after being diagnosed with AIDS improved during the last 10 years (Fig. 13).
- Of those diagnosed with AIDS in 2004, 5 years ago, approximately 80% are still alive.
- Of those diagnosed with AIDS in 1999, 10 years ago, approximately 58% are still alive.



## Section V. Pediatric Cases

Pediatric HIV/AIDS cases are defined as those cases diagnosed before the age of 13. Since the introduction of recommendations to provide antiretrovirals to women during pregnancy, during labor and delivery, and to the infant in the neonatal period, there has been a 95% reduction in mother to child transmission of HIV nationally. Transmission rates among mothers and babies who receive proper treatment during and after pregnancy are as low as 1%.

### Summary

Since the beginning of the epidemic, 333<sup>†</sup> pediatric HIV/AIDS cases have been reported to the District's HIV/AIDS surveillance system. Approximately two-thirds (68.8%) of the pediatric cases were living with HIV/AIDS at the end of 2009. Over 69% of pediatric HIV/AIDS cases were over the age of 13 at the end of 2009, with more than half (51.1%) between 13-19 years of age. These data show that early diagnosis and access to care and treatment among infected children can significantly prolong their lives. The number of mother-to-child transmissions also decreased from 9 in 2005 to 1 in 2009. The number of transmissions can be adjusted each year as diagnoses may be reported in years subsequent to the birth year.

<sup>†</sup> 349 pediatric cases were reported in the 2009 DC Annual Report. This decrease is due to our de-duplication efforts between the name-based reporting system and the code-based reporting system as well as the CDC's efforts to de-duplicate cases between jurisdictions.

### Trends in Pediatric Cases

**Table 14. Cumulative Pediatric HIV/AIDS Cases by Mode of Transmission, Sex and Race/Ethnicity, District of Columbia, 1983-2009**

Pediatric HIV/AIDS Cases	Cumulative through 2009	
Mode of Transmission	N	%
Perinatally acquired	300	90.1
Other*	33	9.9
<b>Subtotal</b>	<b>333</b>	<b>100.0</b>
Sex		
Male	149	44.7
Female	184	55.3
<b>Subtotal</b>	<b>333</b>	<b>100.0</b>
Race/Ethnicity		
White	4	1.2
Black	317	95.2
Hispanic	9	2.7
Other**	3	0.9
<b>Total</b>	<b>333</b>	<b>100.0</b>

\*Other modes of transmission include MSM, transfusion/transplant, and risk not identified.

\*\*Other race/ethnicity includes multi-race individuals, Asian, American Indians, Alaska Natives, Native Hawaiians, Pacific Islanders, and unknown races.

- Perinatal (mother-to-child) transmission accounts for the majority of pediatric infections (90.1%).
- Black children are disproportionately impacted, accounting for 95.2% of pediatric diagnoses. These data are consistent with national data on pediatric infections.

**Table 15. Living Pediatric HIV/AIDS Cases by Mode of Transmission, Sex, Race/Ethnicity, Age at Diagnosis and Current Age, District of Columbia, 2009**

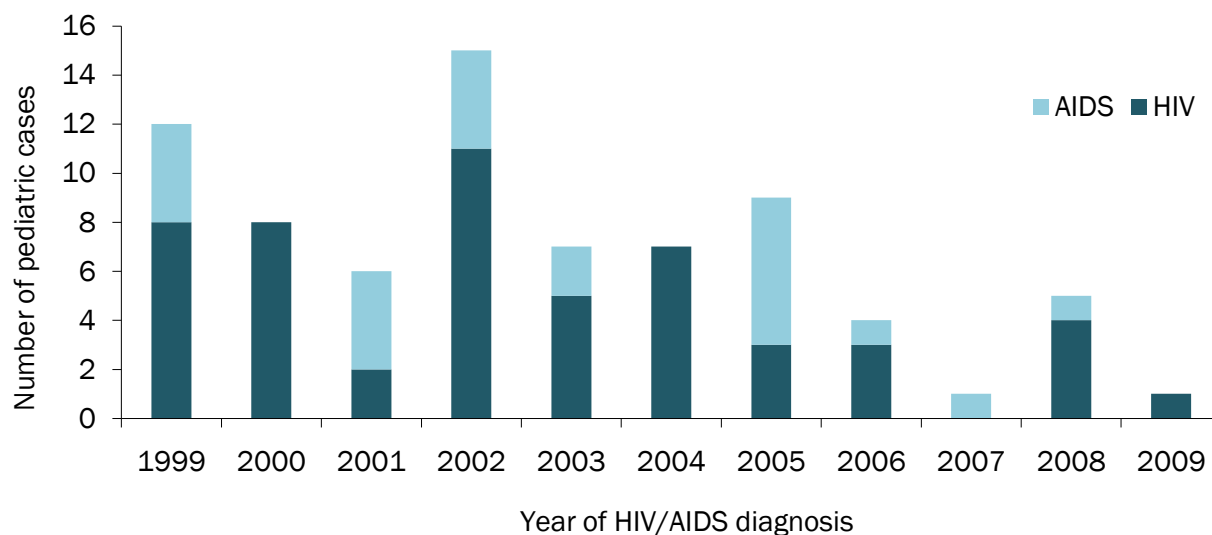
Pediatric HIV/AIDS Cases		Living as of 2009	
Mode of Transmission	N	%	
Perinatally acquired	204	89.1	
Other*	25	10.9	
Subtotal	229	100.0	
Sex			
Male	104	45.4	
Female	125	54.6	
Subtotal	229	100.0	
Race/Ethnicity			
White	<3	--	
Black	219	95.6	
Hispanic	6	2.6	
Other**	3	1.3	
Total	229	100.0	
Age at Diagnosis			
<1	112	48.9	
1 to 2	66	28.8	
3 to 4	16	7.0	
5 to 12	35	15.3	
Total	229	100.0	
Current Age			
<1	<3	--	
1-2	3	1.3	
3-4	10	4.4	
5-12	56	24.5	
13-19	117	51.1	
20-29	39	17.0	
30-40	3	1.3	
Total	229	100.0	

\*Other modes of transmission include MSM, transfusion/transplant, and risk not identified.

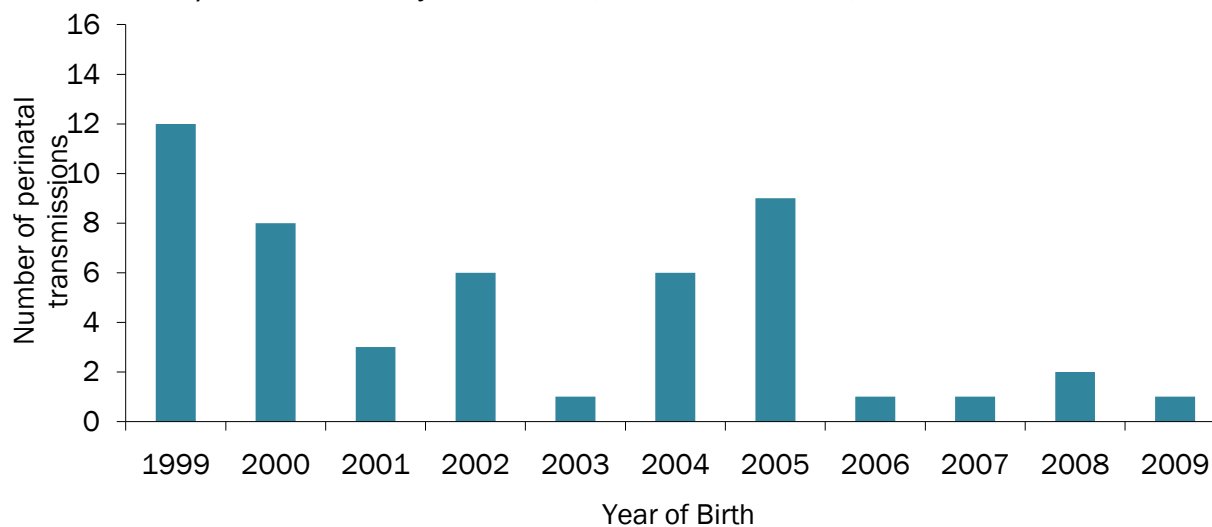
\*\*Other race includes multi-race individuals, Asian, American Indians, Alaska Natives, Native Hawaiians, Pacific Islanders, and unknown races.

- Of the 333 cumulative pediatric cases reported through 2009, 229 (68.8%) are still living.
- Over three quarters (77.7%) of living perinatal cases were diagnosed within the first two years of life, with almost half (48.9%) of those cases diagnosed at less than 12 months of age.
- More than two-thirds (69.4%) of pediatric HIV/AIDS cases are currently over the age of 13, with more than half (51.1%) between 13-19 years of age. These data show that early diagnosis and access to care and treatment among infected children can significantly prolong their lives.

The following figure depicts pediatric HIV/AIDS cases by year of diagnosis. Reports of pediatric HIV/AIDS cases include persons who were residents of the District and reported to have had a perinatal infection, persons born elsewhere, but first diagnosed with HIV while living in the District, and persons not infected perinatally, but infected before 13 years of age.

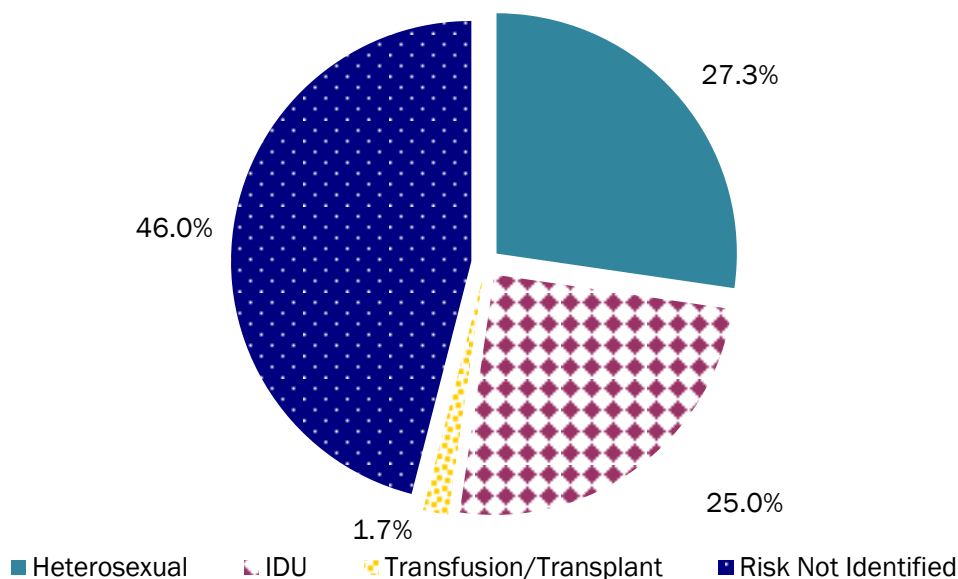
**Figure 17. Pediatric HIV/AIDS Cases by Year of Diagnosis, District of Columbia, 1999-2009**

The following figure of perinatal HIV/AIDS diagnoses are limited to reports of mother to child transmissions that occurred during the year of birth. They are tracked by the year of birth (regardless of time of diagnosis).

**Figure 18. Perinatal HIV/AIDS Infections by Year of Birth, District of Columbia, 1999-2009**

- The number of perinatal HIV/AIDS transmissions decreased from 9 diagnoses in 2005 to 1 in 2009.

**Figure 19. Proportion of Perinatally Acquired HIV/AIDS Cases by Maternal Mode of Transmission, District of Columbia, 2009**



- For those cases in which the maternal mode of transmission was determined, 25.0% and 27.3% were attributed to injection drug use and heterosexual contact, respectively.
- Additional efforts to collect maternal mode of transmission at the time of a child's diagnosis will assist in reclassifying the high proportion of cases that did not yet have a mode of transmission specified.



## Section VI. Sexually Transmitted Diseases

The CDC collects case-based surveillance data on chlamydia, gonorrhea, and primary and secondary syphilis from all 50 states, the District of Columbia, and other jurisdictions (such as Puerto Rico). STDs remain a major public health challenge in the United States and the CDC estimates that there are approximately 19 million new infections each year – almost half of them among young people 15 to 24 years of age. Because many cases of STDs go undiagnosed and therefore unreported – cases of chlamydia, gonorrhea, and syphilis reported nationwide and in this report may represent only a fraction of the true disease burden.

Currently, chlamydia, gonorrhea, and syphilis are the only STDs in which surveillance data is routinely collected and analyzed in the District. Local reporting laws require all clinicians and laboratories to report findings relevant to STDs – including positive test results, patients receiving STD treatment, and suspicious STD related symptoms – to the DOH. The surveillance information in this report is based on these reports and special projects that monitor STD prevalence such as the regional Infertility Prevent Project (IPP), the Gonorrhea Screening Project (GSP), STD screening during the District's Summer Youth Employment Program, and the School-based STD Screening Program (SBSP).

STD morbidity reports should include the patient's name, address, and demographic information (sex, age, race, and ethnicity); however, demographic information is often missing from these reports. In 2009, between 22 - 38% of all reported STDs lacked information on race or ethnicity. Additionally, data on race and ethnicity are reported separately and they are not mutually exclusive variables. Therefore, an individual of Hispanic and black origins could be counted as black non-Hispanic, black Hispanic, black of unknown ethnicity, Hispanic of unknown race, or possibly non-Hispanic of unknown race. For these reasons, the reported totals by demographic factors such as race and ethnicity represent minimal estimates and should be interpreted with caution.

In addition, unlike HIV/AIDS surveillance, STD surveillance is based on new (incident) infections. Therefore, some reported cases may come from the same individual with multiple infections over time.

### Summary

From 2005 to 2009 the District received 26,533 reports of chlamydia. Among those, more than two-thirds of cases were among women (68.0%), over half (58.7%) were black, and two-thirds (68.6%) were between 15-24 years of age. Geographically, the highest rates of chlamydia were reported from the Southeast of the District – 1,412.8 cases per 100,000 population in Ward 8 and 1,184.1 cases per 100,000 population in Ward 7.

In addition, reported chlamydia cases almost doubled from 2006 to 2007. Since 2007 the number of reported cases has leveled off. This increase is likely due to expanded screening programs among high-risk populations and more sensitive diagnostic tests. These new tests can be performed on urine specimens that can be collected in non-traditional venues (such as high schools) and are more effective at detecting infections.

From 2005 to 2009 the District received 11,601 reports of gonorrhea. Unlike chlamydia, the sex of reported cases was divided almost equally between men and women – 52.3% and 47.4%, respectively. Almost three-quarters of reported cases were among blacks (71.5%) and more than half (57.7%) were between 15-24 years of age. The highest rates of gonorrhea were also reported from the Southeast of the District – 715.3 cases per 100,000 population in Ward 8 and 531.2 cases per 100,000 population in Ward 7.

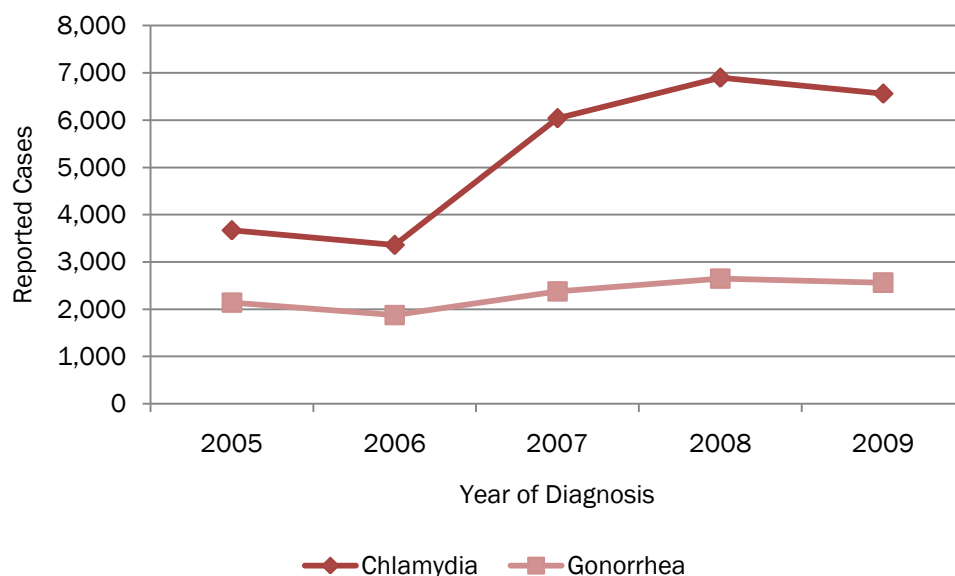
There were 715 cases of primary and secondary syphilis – also known as infectious syphilis – reported in the District between 2005 and 2009. Unlike chlamydia and gonorrhea, which predominately affected youth and young adults less than 24 years of age, two-thirds (67.0%) of syphilis cases were 30 years of age and older. More than half (56.8%) of the reported syphilis cases were among blacks and almost all (95.0%) cases were male. In contrast to the high proportions of unknown race among chlamydia and gonorrhea cases, only 2.1% of syphilis cases had

unknown race. In addition, the highest rates of infectious syphilis were reported from the Northwest of the District – 44.7 cases per 100,000 population in Ward 2 and 34.1 cases per 100,000 population in Ward 1.

#### Reported Cases of Chlamydia and Gonorrhea in the District of Columbia

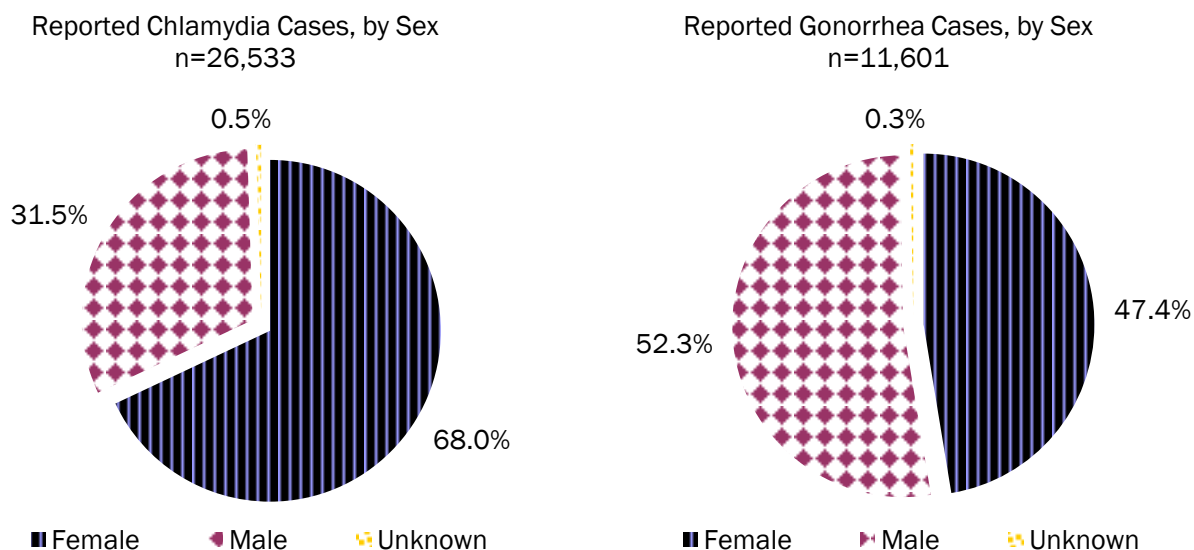
The following section contains a detailed description of reported cases of chlamydia and gonorrhea in the District with tables, figures, and specific data points.

**Figure 20. Reported Cases of Chlamydia and Gonorrhea by Year of Diagnosis, District of Columbia, 2005-2009**

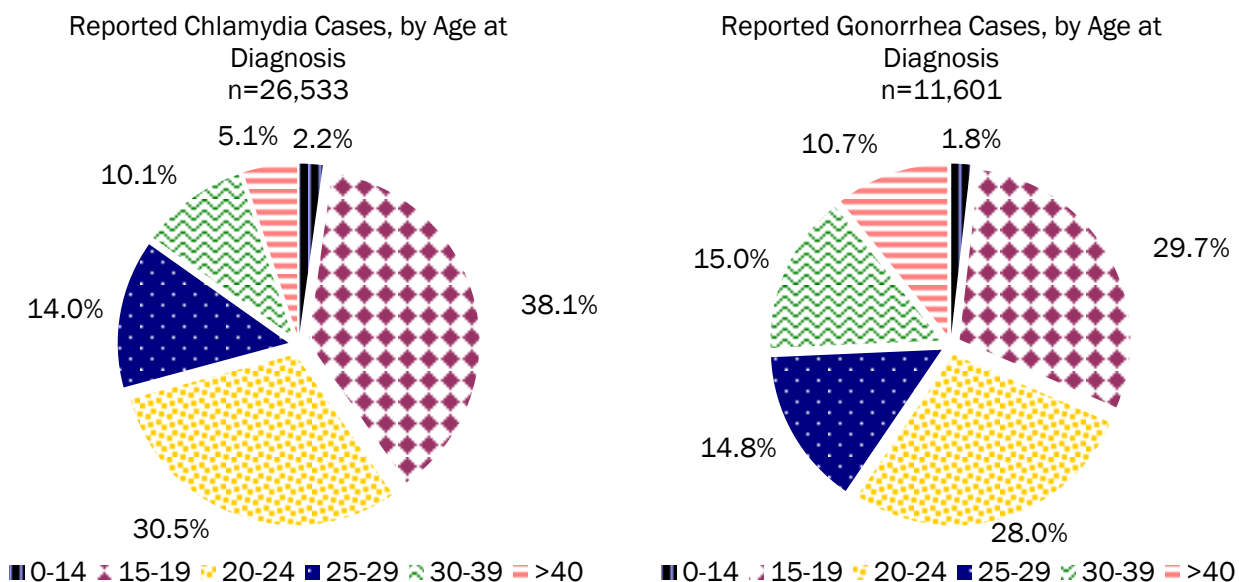


- Due to more sensitive chlamydia testing technology and an increase in youth-focused screening programs, the number of chlamydia cases almost doubled from 2006 to 2009.



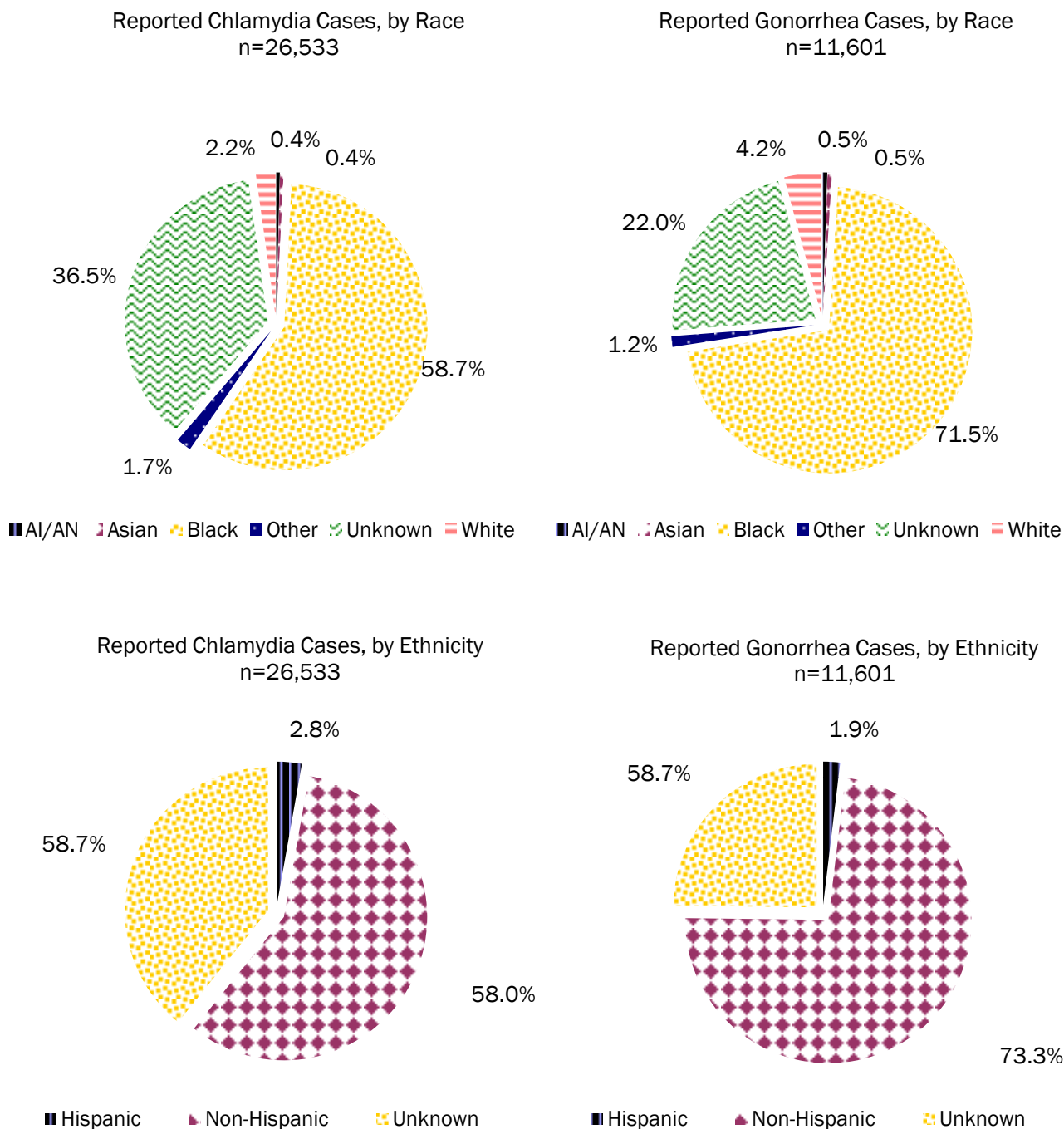
**Figure 21. Reported Chlamydia and Gonorrhea Cases by Sex, District of Columbia, 2005-2009**

- Between 2005 and 2009, approximately two thirds (68.0%) of chlamydia cases occurred among women. Historically, most chlamydia screening programs targeted women of childbearing age.
- During the same period, the proportion of gonorrhea cases reported among men and women was almost the equal – 52.3% and 47.4%, respectively.

**Figure 22. Reported Chlamydia and Gonorrhea Cases by Age of Diagnosis, District of Columbia, 2005-2009**

- Between 2005 and 2009, more than half of all reported chlamydia and gonorrhea cases were diagnosed among young people aged 15-24.



**Figure 23. Reported Chlamydia and Gonorrhea Cases by Race and Ethnicity, District of Columbia, 2005-2009**

- From 2005 to 2009, blacks comprised more than half (58.7%) of chlamydia and almost three-quarters (71.5%) of gonorrhea cases reported in District.
- From 2005 to 2009, Hispanics comprised 2.8% of reported chlamydia cases and 1.9% of reported gonorrhea cases.

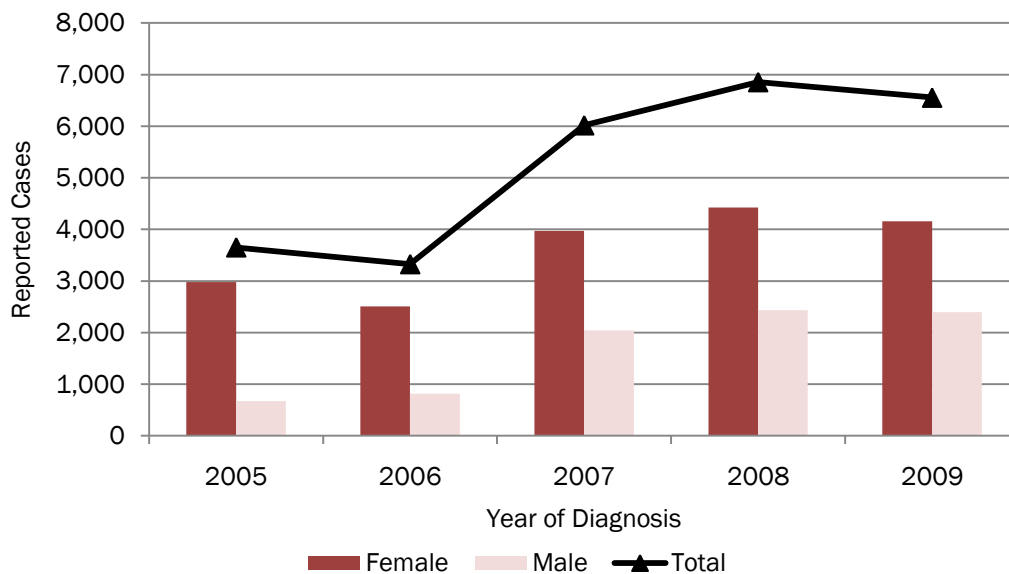
**Table 16. Number and Percentage of Chlamydia Cases by Year of Diagnosis, Sex, Race, Ethnicity, Age at Diagnosis, and Ward Number, District of Columbia, 2005-2009**

	2005		2006		2007		2008		2009		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
<b>Sex</b>												
Female	2,977	81.1	2,508	74.6	3,974	65.8	4,425	64.1	4,159	63.4	18,043	68.0
Male	674	18.4	817	24.3	2,045	33.8	2,432	35.3	2,397	36.5	8,365	31.5
Unknown	19	0.5	35	1.0	23	0.4	42	0.6	6	0.1	125	0.5
<b>Total</b>	<b>3,670</b>	<b>100.0</b>	<b>3,360</b>	<b>100.0</b>	<b>6,042</b>	<b>100.0</b>	<b>6,899</b>	<b>100.0</b>	<b>6,562</b>	<b>100.0</b>	<b>26,533</b>	<b>100.0</b>
<b>Race</b>												
Black	1,751	47.7	1,748	52.0	3,452	57.1	4,172	60.5	4,452	67.8	15,575	58.7
White	75	2.0	105	3.1	123	2.0	126	1.8	161	2.5	590	2.2
Asian	19	0.5	13	0.4	22	0.4	34	0.5	28	0.4	116	0.4
AI/AN	8	0.2	20	0.6	23	0.4	44	0.6	24	0.4	119	0.4
Other	89	2.4	74	2.2	108	1.8	85	1.2	105	1.6	461	1.7
Unknown	1,728	47.1	1,400	41.7	2,314	38.3	2,438	35.3	1,792	27.3	9,672	36.5
<b>Total</b>	<b>3,670</b>	<b>100.0</b>	<b>3,360</b>	<b>100.0</b>	<b>6,042</b>	<b>100.0</b>	<b>6,899</b>	<b>100.0</b>	<b>6,562</b>	<b>100.0</b>	<b>26,533</b>	<b>100.0</b>
<b>Ethnicity</b>												
Hispanic	64	1.7	115	3.4	191	3.2	222	3.2	155	2.4	747	2.8
Non-Hispanic	1,799	49.0	1,792	53.3	3,412	56.5	3,983	57.7	4,394	67.0	15,380	58.0
Unknown	1,807	49.2	1,453	43.2	2,439	40.4	2,694	39.0	2,013	30.7	10,406	39.2
<b>Total</b>	<b>3,670</b>	<b>100.0</b>	<b>3,360</b>	<b>100.0</b>	<b>6,042</b>	<b>100.0</b>	<b>6,899</b>	<b>100.0</b>	<b>6,562</b>	<b>100.0</b>	<b>26,533</b>	<b>100.0</b>
<b>Age Group</b>												
0- 14	116	3.2	74	2.2	115	1.9	152	2.2	132	2.0	589	2.2
15-19	1,343	36.6	1,239	36.9	2,215	36.7	2,694	39.0	2,610	39.8	10,101	38.1
20-24	1,195	32.6	1,041	31.0	1,895	31.4	1,985	28.8	1,980	30.2	8,096	30.5
25-29	500	13.6	465	13.8	865	14.3	1,007	14.6	881	13.4	3,718	14.0
30-39	338	9.2	350	10.4	641	10.6	693	10.0	657	10.0	2,679	10.1
≥40	178	4.9	191	5.7	311	5.1	368	5.3	298	4.5	1,346	5.1
Unknown	<3	–	<3	–	<3	–	<3	–	4	0.1	4	0.0
<b>Total</b>	<b>3,670</b>	<b>100.0</b>	<b>3,360</b>	<b>100.0</b>	<b>6,042</b>	<b>100.0</b>	<b>6,899</b>	<b>100.0</b>	<b>6,562</b>	<b>100.0</b>	<b>26,533</b>	<b>100.0</b>
<b>Ward of Residence</b>												
Ward 1	250	6.8	313	9.3	538	8.9	455	6.6	450	6.9	2,006	7.6
Ward 2	133	3.6	156	4.6	228	3.8	237	3.4	257	3.9	1,011	3.8
Ward 3	33	0.9	44	1.3	67	1.1	74	1.1	71	1.1	289	1.1
Ward 4	263	7.2	207	6.2	387	6.4	357	5.2	442	6.7	1,656	6.2
Ward 5	413	11.3	337	10.0	683	11.3	850	12.3	846	12.9	3,129	11.8
Ward 6	295	8.0	243	7.2	442	7.3	454	6.6	497	7.6	1,931	7.3
Ward 7	602	16.4	465	13.8	934	15.5	1,073	15.6	1,124	17.1	4,198	15.8
Ward 8	703	19.2	506	15.1	1,088	18.0	1,257	18.2	1,457	22.2	5,011	18.9
Detention Center*	21	0.6	139	4.1	452	7.5	629	9.1	598	9.1	1,839	6.9
Unknown	957	26.1	950	28.3	1,223	20.2	1,513	21.9	820	12.5	5,463	20.6
<b>Total</b>	<b>3,670</b>	<b>100.0</b>	<b>3,360</b>	<b>100.0</b>	<b>6,042</b>	<b>100.0</b>	<b>6,899</b>	<b>100.0</b>	<b>6,562</b>	<b>100.0</b>	<b>26,533</b>	<b>100.0</b>

\* Detention center includes the District jail and the youth detention center

- From 2005 to 2009 there were 26,533 reported cases of chlamydia among District residents. More than two-thirds (68.0%) of cases were among women.
- With the shift in chlamydia screening from women of childbearing age only to all youth < 25 years of age, the number of men diagnosed with chlamydia infection increased nearly four-fold from 674 cases in 2005 to 2,397 in 2009.
- The number of chlamydia cases among blacks increased 2.5 times – from 1,751 in 2005 to 4,452 in 2009.
- Through the District's youth-focused screening initiatives, the number of youth aged 15-19 diagnosed with chlamydia more than doubled from 1,343 in 2005 to 2,610 in 2009.
- From 2005 to 2009, Ward 8 (n=5,011) had the highest number of reported chlamydia cases, followed closely by Ward 7 (n=4,198).

**Figure 24. Trends in the Number of Reported Chlamydia Cases by Year of Diagnosis and Sex, District of Columbia, 2005-2009**



- From 2005 to 2009, the total number of reported chlamydia cases nearly doubled.
- In 2005 the ratio of cases among women to cases among men was 4.4 to 1. In 2009 the ratio decreased to 1.7 to 1.



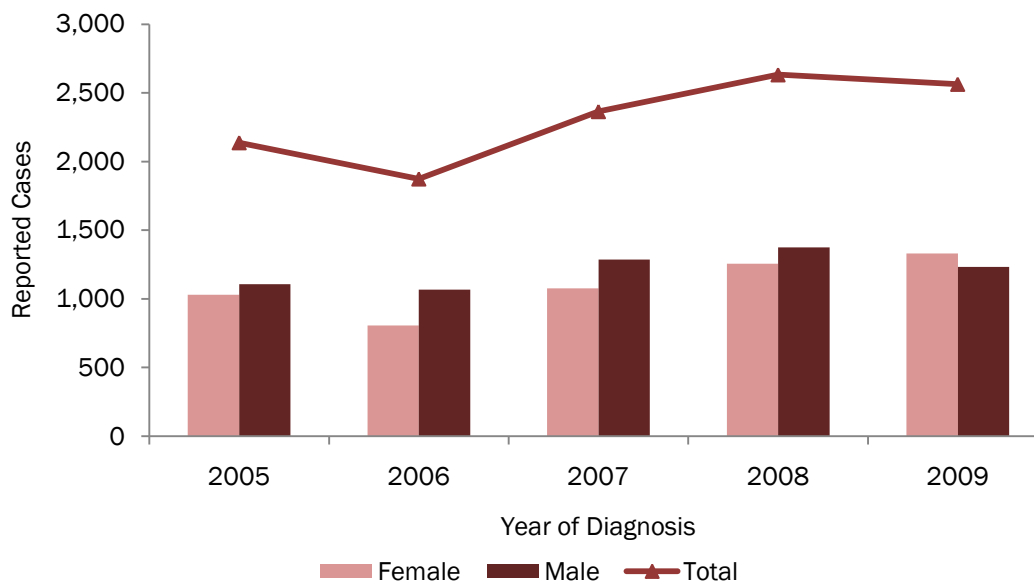
**Table 17. Number and Percentage of Gonorrhea Cases by Year of Diagnosis, Sex, Race, Ethnicity, Age at Diagnosis, and Ward, District of Columbia, 2005-2009**

	2005		2006		2007		2008		2009		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
<b>Sex</b>												
Female	1,031	48.2	806	42.9	1,077	45.3	1,257	47.5	1,331	51.9	5,502	47.4
Male	1,106	51.7	1,067	56.8	1,287	54.2	1,375	52.0	1,232	48.1	6,067	52.3
Unknown	3	0.1	4	0.2	11	0.5	14	0.5	<3	–	32	0.3
<b>Total</b>	<b>2,140</b>	<b>100.0</b>	<b>1,877</b>	<b>100.0</b>	<b>2,375</b>	<b>100</b>	<b>2,646</b>	<b>100.0</b>	<b>2,563</b>	<b>100.0</b>	<b>11,601</b>	<b>100.0</b>
<b>Race</b>												
Black	1,582	73.9	1,378	73.4	1,600	67.4	1,785	67.5	1,952	76.2	8,297	71.5
White	72	3.4	97	5.2	112	4.7	90	3.4	117	4.6	488	4.2
Asian	7	0.3	10	0.5	10	0.4	14	0.5	13	0.5	54	0.5
AI/AN	9	0.4	16	0.9	10	0.4	14	0.5	12	0.5	61	0.5
Other	25	1.2	35	1.9	23	1.0	32	1.2	28	1.1	143	1.2
Unknown	445	20.8	341	18.2	620	26.1	711	26.9	441	17.2	2,558	22.0
<b>Total</b>	<b>2,140</b>	<b>100.0</b>	<b>1,877</b>	<b>100.0</b>	<b>2,375</b>	<b>100.0</b>	<b>2,646</b>	<b>100.0</b>	<b>2,563</b>	<b>100.0</b>	<b>11,601</b>	<b>100.0</b>
<b>Ethnicity</b>												
Hispanic	21	1.0	41	2.2	51	2.1	52	2.0	54	2.1	219	1.9
Non-Hispanic	1,645	76.9	1,440	76.7	1,639	69.0	1,782	67.3	1,996	77.9	8,502	73.3
Unknown	474	22.1	396	21.1	685	28.8	812	30.7	513	20.0	2,880	24.8
<b>Total</b>	<b>2,140</b>	<b>100.0</b>	<b>1,877</b>	<b>100.0</b>	<b>2,375</b>	<b>100.0</b>	<b>2,646</b>	<b>100.0</b>	<b>2,563</b>	<b>100.0</b>	<b>11,601</b>	<b>100.0</b>
<b>Age Group</b>												
0- 14	35	1.6	31	1.7	40	1.7	60	2.3	39	1.5	205	1.8
15-19	568	26.5	495	26.4	638	26.9	880	33.3	870	33.9	3,451	29.7
20-24	600	28.0	512	27.3	693	29.2	712	26.9	730	28.5	3,247	28.0
25-29	317	14.8	299	15.9	368	15.5	370	14.0	367	14.3	1,721	14.8
30-39	353	16.5	324	17.3	369	15.5	364	13.8	328	12.8	1,738	15.0
≥40	267	12.5	216	11.5	267	11.2	260	9.8	229	8.9	1,239	10.7
<b>Total</b>	<b>2,140</b>	<b>100.0</b>	<b>1,877</b>	<b>100.0</b>	<b>2,375</b>	<b>100.0</b>	<b>2,646</b>	<b>100.0</b>	<b>2,563</b>	<b>100.0</b>	<b>11,601</b>	<b>100.0</b>
<b>Ward of Residence</b>												
Ward 1	167	7.8	145	7.7	184	7.7	206	7.8	180	7.0	882	7.6
Ward 2	98	4.6	116	6.2	119	5.0	124	4.7	141	5.5	598	5.2
Ward 3	21	1.0	13	0.7	21	0.9	19	0.7	22	0.9	96	0.8
Ward 4	126	5.9	108	5.8	123	5.2	135	5.1	169	6.6	661	5.7
Ward 5	296	13.8	258	13.7	305	12.8	350	13.2	342	13.3	1,551	13.4
Ward 6	233	10.9	169	9.0	200	8.4	222	8.4	213	8.3	1,037	8.9
Ward 7	375	17.5	256	13.6	360	15.2	407	15.4	483	18.8	1,881	16.2
Ward 8	479	22.4	361	19.2	499	21.0	558	21.1	636	24.8	2,533	21.8
Detention Center*	25	1.2	63	3.4	115	4.8	166	6.3	153	6.0	522	4.5
Unknown	320	15.0	388	20.7	449	18.9	459	17.3	224	8.7	1,840	15.9
<b>Total</b>	<b>2,140</b>	<b>100.0</b>	<b>1,877</b>	<b>100.0</b>	<b>2,375</b>	<b>100.0</b>	<b>2,646</b>	<b>100.0</b>	<b>2,563</b>	<b>100.0</b>	<b>11,601</b>	<b>100.0</b>

\* Detention center includes the District jail and the youth detention center

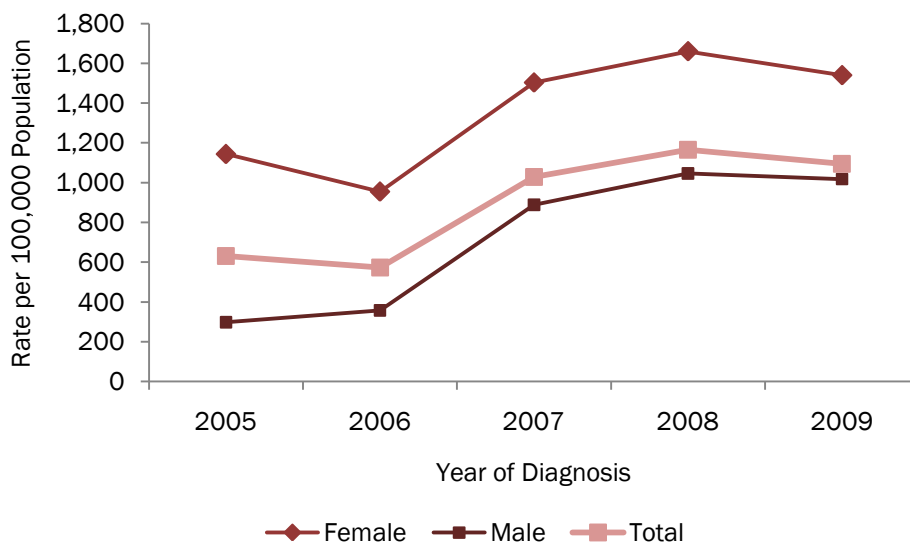
- Unlike chlamydia, gonorrhea cases were reported almost equally among men (52.3%) and women (47.4%).
- Nearly three quarters of gonorrhea cases (71.5%) were among blacks.
- From 2005 to 2009, the proportion of cases reported among people aged 15-24 increased 14.5% (54.5% of cases in 2005 to 62.4% of cases in 2009). In contrast, the proportion of cases reported among those 30 and older decreased 25.2% (29.0% of cases in 2005 to 21.7% of cases in 2009).
- Ward 8 had the highest number of reported cases of gonorrhea at 2,533 cases, followed closely by Wards 7 (1,881 cases) and 5 (1,551 cases).

**Figure 25. Trends in the Number of Reported Gonorrhea Cases by Year of Diagnosis and Sex, District of Columbia, 2005-2009**

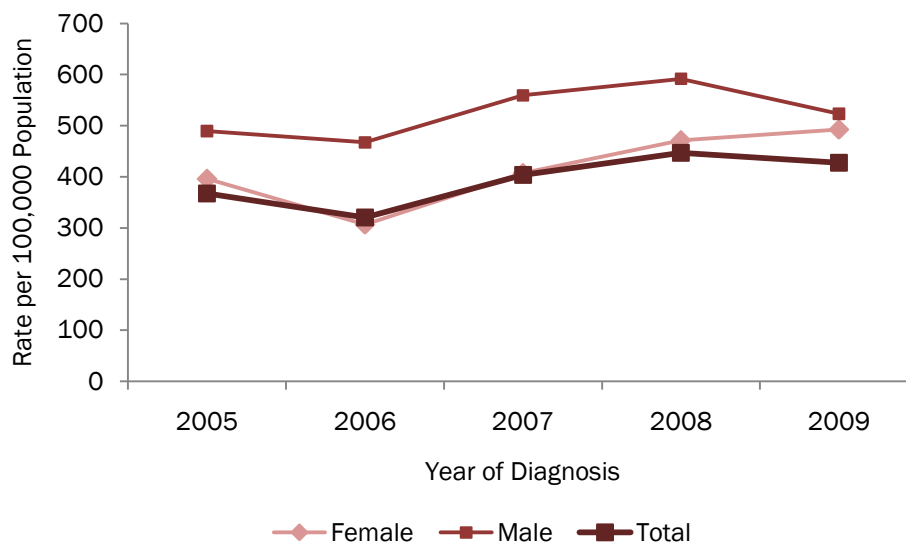


- From 2006 to 2009, the number of reported gonorrhea cases steadily increased among women.
- From 2006 to 2008, the number of reported gonorrhea cases among men increased, but has leveled off in 2009.
- In 2005, the ratio of cases of gonorrhea among women to men was 0.93 to 1. In 2009 the ratio was 1.1 to 1.

**Figure 26. Rate of Chlamydia Cases by Year of Diagnosis and Sex, District of Columbia, 2005-2009**



- The rate of reported chlamydia cases in the District nearly doubled from 630.5 cases per 100,000 population in 2005 to 1,094.3 cases per 100,000 population in 2009. As most chlamydia cases do not show symptoms, most infections were picked up through screening, and the population rates are an underestimate of the true burden of disease.
- For women, the rates increased by nearly 50%, from 1,143.8 cases per 100,000 population in 2005 to 1,539.7 cases per 100,000 population in 2009.

**Figure 27. Rate of Gonorrhea Cases by Year of Diagnosis and Sex, District of Columbia, 2005-2009**

- Similar to national trends, gonorrhea rates among men and women decreased from 2005 to 2006.
- From 2006 to 2009, gonorrhea rates among women increased. From 2006 to 2008, gonorrhea rates among men increased but from 2008 to 2009 gonorrhea rates among men slightly decreased.

**Table 18. Chlamydia Rates in US Cities and Counties, Ranked by Rate per 100,000 population, 2009**

Rank <sup>†</sup>	County / City	Cases	Rate per 100,00
1	Philadelphia County, PA	18,104	1,250.8
2	St. Louis (City), MO	4,390	1,238.8
3	Bronx County, NY	17,174	1,233.9
4	Baltimore (City), MD	7,822	1,228.1
5	Shelby County, TN	10,827	1,193.9
6	<b>Washington, DC</b>	<b>6,549</b>	<b>1,106.6</b>
7	Milwaukee County, WI	9,917	1,040.3

<sup>†</sup> Adapted from the 2009 CDC Sexually Transmitted Diseases Surveillance Report

- The District ranks sixth among US cities and counties for chlamydia at a rate of 1,106.6 cases per 100,000 population.

**Table 19. Gonorrhea Rates in US Cities and Counties, Ranked by Rate per 100,000 population, 2009**

Rank <sup>†</sup>	County / City	Cases	Rate per 100,00
1	Hinds County, MS	1,344	542.7
2	Caddo County, LA	1,284	507.7
3	Norfolk (City), VA	1,091	465.8
4	Baltimore (City), MD	2,882	452.5
5	<b>Washington, DC</b>	<b>2,561</b>	<b>432.7</b>
6	Shelby County, TN	3,827	422.0
7	Orleans County, LA	1,316	422.0

<sup>†</sup> Adapted from the 2009 CDC Sexually Transmitted Diseases Surveillance Report

- The District ranks fifth among US cities and counties for gonorrhea, with a rate of 432.7 cases per 100,000 population.

**Table 20. Number and Rate per 100,000 Population of Chlamydia Cases by Year of Diagnosis, Sex, Race, Ethnicity, Age at Diagnosis, and Ward, District of Columbia, 2005-2009**

	2005		2006		2007		2008		2009		Total	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
<b>Sex</b>												
Female	2,977	1,143.8	2,508	955.1	3,974	1,502.8	4,425	1,659.9	4,159	1,539.7	18,043	1,360.3
Male	674	298.3	817	357.8	2,045	888.6	2,432	1,046.5	2,397	1,017.9	8,365	721.8
Unknown	19	19.8	35	37.0	23	24.7	42	45.2	6	6.4	125	26.6
<b>Total</b>	<b>3,670</b>	<b>630.5</b>	<b>3,360</b>	<b>573.9</b>	<b>6,042</b>	<b>1,027.8</b>	<b>6,899</b>	<b>1,165.7</b>	<b>6,562</b>	<b>1,094.3</b>	<b>26,533</b>	<b>898.5</b>
<b>Race</b>												
Black	1,751	657.5	1,748	659.5	3,452	1,311.1	4,172	1,591.1	4,452	1,675.7	15,575	1,179.0
White	75	38.3	105	52.3	123	59.9	126	60.0	161	75.7	590	57.2
Asian	19	119.1	13	78.4	22	128.7	34	192.7	28	156.6	116	135.1
AI/AN	8	429.4	20	1,046.0	23	1,175.9	44	2,196.7	24	1,182.6	119	1,206.1
Other	89	1,479.9	74	1,197.2	108	1,703.7	85	1,285.0	105	1,566.6	461	1,446.5
Unknown	1,728	1,795.5	1,400	1,474.5	2,314	2,468.1	2,438	2,612.4	1,792	1,895.1	9,672	2,049.1
<b>Total</b>	<b>3,670</b>	<b>630.5</b>	<b>3,360</b>	<b>573.9</b>	<b>6,042</b>	<b>1,027.8</b>	<b>6,899</b>	<b>1,165.7</b>	<b>6,562</b>	<b>1,094.3</b>	<b>26,533</b>	<b>898.5</b>
<b>Ethnicity</b>												
Hispanic	64	166.2	115	298.3	191	491.5	222	551.6	155	380.1	747	377.6
Non-Hispanic	1,799	401.8	1,792	396.1	3,412	748.7	3,983	868.2	4,394	945.3	15,380	672.0
Unknown	1,807	1,886.0	1,453	1,537.4	2,439	2,614.0	2,694	2,901.7	2,013	2,139.9	10,406	2,215.8
<b>Total</b>	<b>3,670</b>	<b>630.5</b>	<b>3,360</b>	<b>573.9</b>	<b>6,042</b>	<b>1,027.8</b>	<b>6,899</b>	<b>1,165.7</b>	<b>6,562</b>	<b>1,094.3</b>	<b>26,533</b>	<b>898.5</b>
<b>Age Group</b>												
0-14	116	123.1	74	79.4	115	124.5	152	165.5	132	144.1	589	127.1
15-19	1,343	3,376.9	1,239	3,115.4	2,215	5,479.1	2,694	6,598.3	2,610	6,309.1	10,101	4,975.8
20-24	1,195	2,243.6	1,041	1,954.5	1,895	3,585.1	1,985	3,681.8	1,980	3,624.6	8,096	3,017.9
25-29	500	887.9	465	825.7	865	1,473.3	1,007	1,663.2	881	1,436.1	3,718	1,257.3
30-39	338	366.0	350	379.0	641	689.8	693	748.3	657	700.1	2,679	576.6
≥40	178	71.4	191	76.6	311	124.6	368	146.6	298	117.1	1,346	107.3
<b>Total</b>	<b>3,670</b>	<b>630.5</b>	<b>3,360</b>	<b>573.9</b>	<b>6,042</b>	<b>1,027.8</b>	<b>6,899</b>	<b>1,165.7</b>	<b>6,562</b>	<b>1,094.3</b>	<b>26,529</b>	<b>898.5</b>
<b>Ward of Residence</b>												
Ward 1	250	330.4	313	411.3	538	704.0	455	591.4	450	577.3	2,006	522.9
Ward 2	133	190.4	156	222.1	228	323.2	237	333.7	257	357.1	1,011	285.3
Ward 3	33	43.6	44	57.8	67	87.7	74	96.2	71	91.1	289	75.3
Ward 4	263	347.6	207	272.0	387	506.4	357	464.0	442	567.0	1,656	431.4
Ward 5	413	591.3	337	479.7	683	968.2	850	1,196.8	846	1,175.7	3,129	882.3
Ward 6	295	422.4	243	345.9	442	626.6	454	639.3	497	690.7	1,931	545.0
Ward 7	602	861.9	465	661.9	934	1,324.0	1,073	1,510.8	1,124	1,562.0	4,198	1,184.1
Ward 8	703	1,006.5	506	720.3	1,088	1,542.3	1,257	1,769.9	1,457	2,024.8	5,011	1,412.8
<b>Total</b>	<b>3,670</b>	<b>630.5</b>	<b>3,360</b>	<b>573.9</b>	<b>6,042</b>	<b>1,027.8</b>	<b>6,899</b>	<b>1,165.7</b>	<b>6,562</b>	<b>1,094.3</b>	<b>26,529</b>	<b>898.5</b>

- The rate of chlamydia cases among men and women increased from 2005 to 2009. Among men the rate tripled; from 298.3 cases per 100,000 population in 2005 to 1,017.9 cases per 100,000 population in 2009.
- The rate of chlamydia cases increased among all racial and ethnic groups between 2005 and 2009. This increase is largely attributed to the expansion of publicly supported testing.
- The rate of chlamydia cases increased among all age groups as well. The rate per 100,000 population among 15-19 year olds almost doubled from 2005 to 2009 (from 3,376.9 in 2005 to 6,309.1 in 2009). The increased rate may be due in part to the District's youth-focused screening efforts.
- Ward 8 had the highest rate of chlamydia cases, followed closely by Wards 7 and 5.



**Table 21. Number and Rate per 100,000 Population of Gonorrhea Cases by Year of Diagnosis, Sex, Race, Ethnicity, Age at Diagnosis, and Ward, District of Columbia, 2005-2009**

	2005		2006		2007		2008		2009		Total	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
<b>Sex</b>												
Female	1,031	396.1	806	306.9	1,077	407.3	1,257	471.5	1,331	492.8	5,502	414.9
Male	1,106	489.5	1,067	467.3	1,287	559.2	1,375	591.6	1,232	523.2	6,067	526.2
Unknown	3	3.1	4	4.2	11	11.8	14	15.1	<3	–	32	6.8
<b>Total</b>	<b>2,140</b>	<b>367.7</b>	<b>1,877</b>	<b>320.6</b>	<b>2,375</b>	<b>404.0</b>	<b>2,646</b>	<b>447.1</b>	<b>2,563</b>	<b>427.4</b>	<b>11,601</b>	<b>393.4</b>
<b>Race</b>												
Black	1,582	594.1	1,378	519.9	1,600	607.7	1,785	680.7	1,952	734.7	8,297	627.4
White	72	36.8	97	48.3	112	54.5	90	42.9	117	55.0	488	47.5
Asian	7	43.9	10	60.3	10	58.5	14	79.3	13	72.7	54	63.0
AI/AN	9	483.1	16	836.8	10	511.2	14	699.0	12	591.3	61	624.3
Other	25	415.7	35	566.3	23	362.8	32	483.7	28	417.8	143	449.3
Unknown	445	462.4	341	359.1	620	661.3	711	761.9	441	466.4	2,558	542.2
<b>Total</b>	<b>2,140</b>	<b>367.7</b>	<b>1,877</b>	<b>320.6</b>	<b>2,375</b>	<b>404.0</b>	<b>2,646</b>	<b>447.1</b>	<b>2,563</b>	<b>427.4</b>	<b>11,601</b>	<b>393.4</b>
<b>Ethnicity</b>												
Hispanic	21	54.5	41	106.4	51	131.2	52	129.2	54	132.4	219	110.8
Non-Hispanic	1,645	367.4	1,440	318.3	1,639	359.7	1,782	388.4	1,996	429.4	8,502	372.7
Unknown	474	494.7	396	419.0	685	734.2	812	874.6	513	545.3	2,880	613.6
<b>Total</b>	<b>2,140</b>	<b>367.7</b>	<b>1,877</b>	<b>320.6</b>	<b>2,375</b>	<b>404.0</b>	<b>2,646</b>	<b>447.1</b>	<b>2,563</b>	<b>427.4</b>	<b>11,601</b>	<b>393.4</b>
<b>Age Group</b>												
0-14	35	37.2	31	33.2	40	43.3	60	65.3	39	42.6	205	44.3
15-19	568	1,466.9	495	1,244.7	638	1,578.2	880	2,155.3	870	2,103.0	3,451	1,709.6
20-24	600	1,158.1	512	961.3	693	1,311.1	712	1,320.6	730	1,336.3	3,247	1,217.5
25-29	317	572.1	299	531.0	368	626.8	370	611.1	367	598.3	1,721	587.8
30-39	353	382.7	324	350.8	369	397.1	364	393.0	328	349.5	1,738	374.6
≥40	267	107.6	216	86.7	267	107.0	260	103.5	229	90.0	1,239	99.0
<b>Total</b>	<b>2,140</b>	<b>367.7</b>	<b>1,877</b>	<b>320.6</b>	<b>2,375</b>	<b>404.0</b>	<b>2,646</b>	<b>447.1</b>	<b>2,563</b>	<b>427.4</b>	<b>11,601</b>	<b>393.4</b>
<b>Ward of Residence</b>												
Ward 1	167	220.7	145	190.5	184	240.8	206	267.7	180	230.9	882	230.1
Ward 2	98	140.3	116	165.1	119	168.7	124	174.6	141	195.9	598	168.9
Ward 3	21	27.8	13	17.1	21	27.5	19	24.7	22	28.2	96	25.0
Ward 4	126	166.5	108	141.9	123	160.9	135	175.5	169	216.8	661	172.3
Ward 5	296	423.8	258	367.3	305	432.4	350	492.8	342	475.3	1,551	438.3
Ward 6	233	333.6	169	240.6	200	283.5	222	312.6	213	296.0	1,037	293.3
Ward 7	375	536.9	256	364.4	360	510.3	407	573.1	483	671.2	1,881	531.2
Ward 8	479	685.8	361	513.9	499	707.4	558	785.7	636	883.8	2,533	715.3
<b>Total</b>	<b>2,140</b>	<b>367.7</b>	<b>1,877</b>	<b>320.6</b>	<b>2,375</b>	<b>404.0</b>	<b>2,646</b>	<b>447.1</b>	<b>2,563</b>	<b>427.4</b>	<b>11,601</b>	<b>393.4</b>

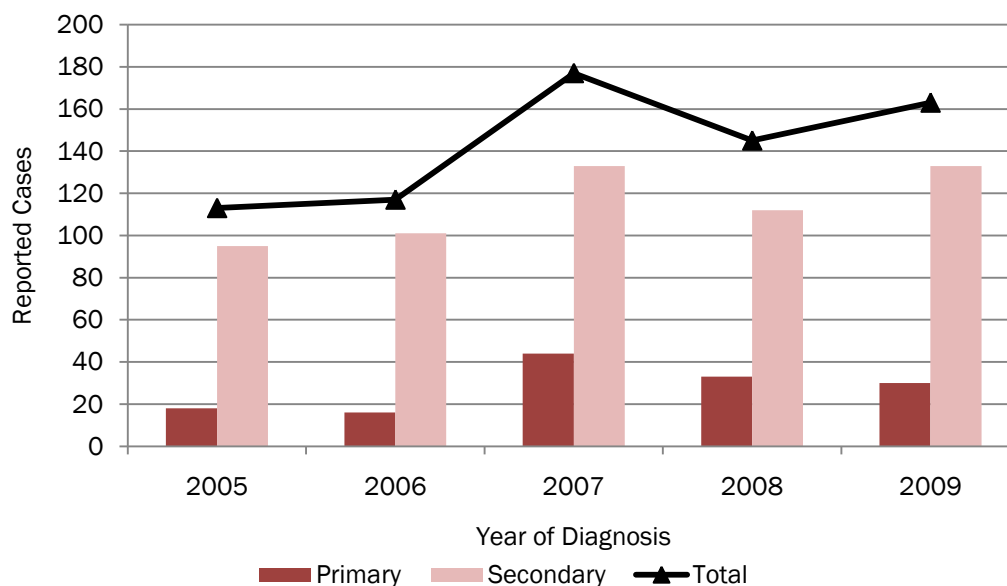
- The rate of gonorrhea increased among both sexes, all races (excluding “Other” and “Unknown”), and among 15-19 year olds.
- Among those 30 and over, the rate of gonorrhea slightly decreased from 2005 to 2009.
- Similar to chlamydia, Ward 8 had the highest number and rate of gonorrhea cases, followed closely by Wards 7 and 5.

#### Reported Cases of Primary and Secondary Syphilis in the District of Columbia

Primary syphilis is defined as the stage of syphilis characterized by a large painless lesion (chancre) where the bacteria entered the body. This lesion can be on or in the mouth, rectum, vagina, or penis. The time from exposure/infection to the onset of symptoms ranges from 10 to 90 days, with an average of 21 days. Secondary syphilis is characterized by rashes that can appear anywhere on the body, but typically involve the hands and feet. Other secondary syphilis symptoms include fever, swollen lymph glands, sore throat, patchy hair loss, headaches,

weight loss, muscle aches and fatigue. Primary and secondary syphilis surveillance data is used as a measure of the incidence (new cases) of syphilis.

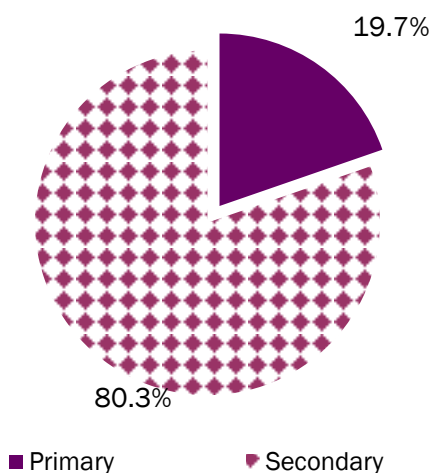
**Figure 28. Reported Cases of Primary and Secondary Syphilis by Year of Diagnosis, District of Columbia, 2005-2009**



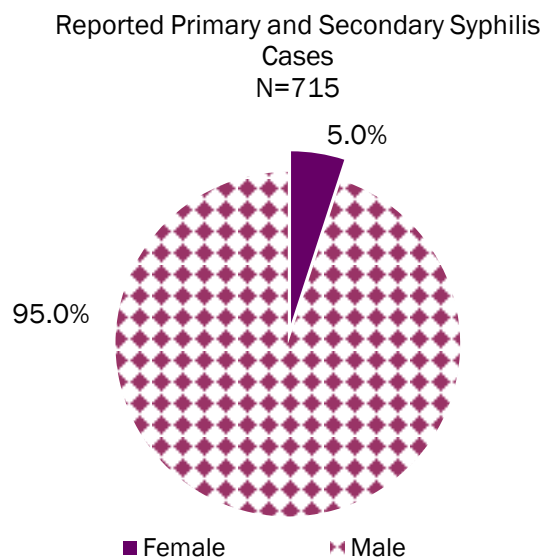
- Between 2005 and 2009, 715 primary and secondary syphilis cases were reported among District of Columbia residents.
- In 2009, reported cases of primary and secondary syphilis increased 12.4% over the previous year.

**Figure 29. Reported Cases of Primary and Secondary Syphilis, District of Columbia, 2005-2009**

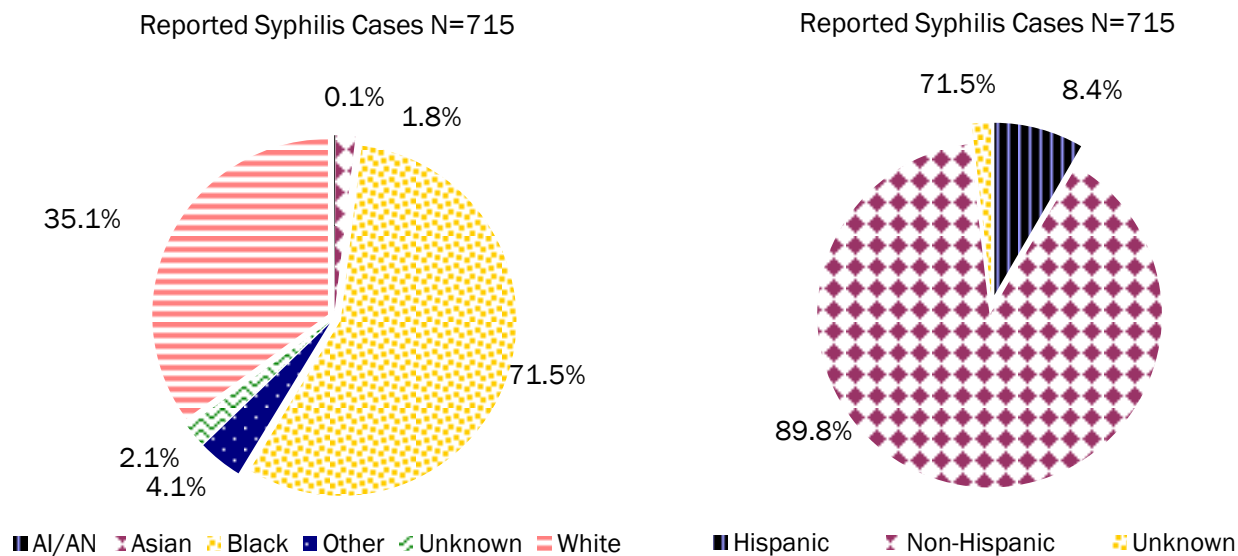
Reported Primary and Secondary Syphilis Cases  
N=715



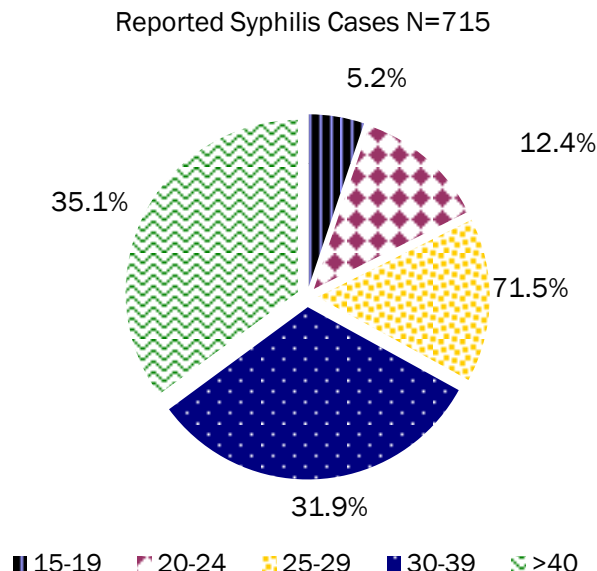
- From 2005 to 2009, 80.3% of syphilis cases were secondary syphilis.

**Figure 30. Reported Cases of Primary and Secondary Syphilis by Sex, District of Columbia, 2005-2009**

- From 2005 to 2009, 95% of primary and secondary syphilis cases were among men.

**Figure 31. Primary and Secondary Syphilis Cases by Race/Ethnicity, District of Columbia, 2005-2009**

- From 2005 to 2009, blacks represented the highest percentage of primary and secondary syphilis cases (56.8%) among all racial groups.
- Whites represented 35.1% of primary and secondary syphilis cases. This percentage was substantially higher than for chlamydia (2.2%) and gonorrhea (4.2%).
- By ethnicity, 8.4% of primary and secondary syphilis cases reported were among Hispanics.

**Figure 32. Reported Cases of Primary and Secondary Syphilis Cases by Age, District of Columbia, 2005-2009**

- Unlike chlamydia and gonorrhea, in which a majority of cases were diagnosed among people aged 15-24, the highest proportion of primary and secondary syphilis cases were reported among those 30 years old and older (67.0%).

**Table 22. Number and Percentage of Primary and Secondary Syphilis Cases by Year of Diagnosis, Sex, Race, Ethnicity, Age at Diagnosis, and Ward, District of Columbia, 2005-2009**

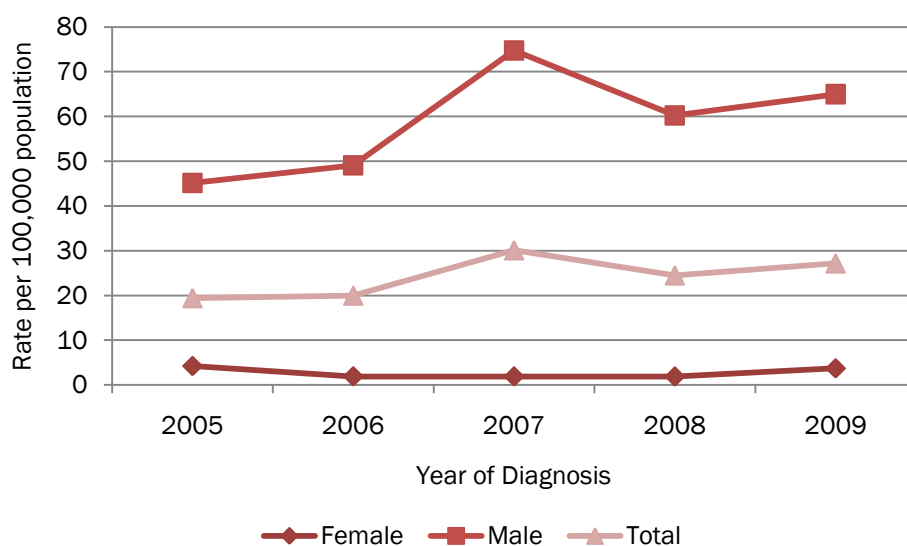
	2005		2006		2007		2008		2009		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
<b>Type</b>												
Primary	18	15.9	16	13.7	44	24.9	33	22.8	30	18.4	141	19.7
Secondary	95	84.1	101	86.3	133	75.1	112	77.2	133	81.6	574	80.3
<b>Total</b>	<b>113</b>	<b>100.0</b>	<b>117</b>	<b>100.0</b>	<b>177</b>	<b>100.0</b>	<b>145</b>	<b>100.0</b>	<b>163</b>	<b>100.0</b>	<b>715</b>	<b>100.0</b>
<b>Sex</b>												
Female	11	9.7	5	4.3	5	2.8	5	3.4	10	6.1	36	5.0
Male	102	90.3	112	95.7	172	97.2	140	96.6	153	93.9	679	95.0
<b>Total</b>	<b>113</b>	<b>100.0</b>	<b>117</b>	<b>100.0</b>	<b>177</b>	<b>100.0</b>	<b>145</b>	<b>100.0</b>	<b>163</b>	<b>100.0</b>	<b>715</b>	<b>100.0</b>
<b>Race</b>												
Black	66	58.4	60	51.3	100	56.5	88	60.7	92	56.4	406	56.8
White	41	36.3	53	45.3	62	35.0	45	31.0	50	30.7	251	35.1
Asian	3	2.7	<3	–	4	2.3	<3	–	3	1.8	13	1.8
AI/AN	<3	–	<3	–	<3	–	<3	–	<3	–	<3	–
Other	3	2.7	0	0.0	8	4.5	7	4.8	11	6.7	29	4.1
Unknown	<3	–	<3	–	3	1.7	4	2.8	7	4.3	15	2.1
<b>Total</b>	<b>113</b>	<b>100.0</b>	<b>117</b>	<b>100.0</b>	<b>177</b>	<b>100.0</b>	<b>145</b>	<b>100.0</b>	<b>163</b>	<b>100.0</b>	<b>715</b>	<b>100.0</b>
<b>Ethnicity</b>												
Hispanic	4	3.5	6	5.1	19	10.7	13	9.0	18	11.0	60	8.4
Non-Hispanic	109	96.5	111	94.9	154	87.0	128	88.3	140	85.9	642	89.8
Unknown	<3	–	<3	–	4	2.3	4	2.8	5	3.1	13	1.8
<b>Total</b>	<b>113</b>	<b>100.0</b>	<b>117</b>	<b>100.0</b>	<b>177</b>	<b>100.0</b>	<b>145</b>	<b>100.0</b>	<b>163</b>	<b>100.0</b>	<b>715</b>	<b>100.0</b>
<b>Age Group</b>												
15-19	7	6.2	6	5.1	7	4.0	7	4.8	10	6.1	37	5.2
20-24	8	7.1	14	12.0	20	11.3	22	15.2	25	15.3	89	12.4
25-29	16	14.2	17	14.5	29	16.4	18	12.4	30	18.4	110	15.4
30-39	39	34.5	35	29.9	58	32.8	46	31.7	50	30.7	228	31.9
≥40	43	38.1	45	38.5	63	35.6	52	35.9	48	29.4	251	35.1
<b>Total</b>	<b>113</b>	<b>100.0</b>	<b>117</b>	<b>100</b>	<b>177</b>	<b>100.0</b>	<b>145</b>	<b>100.0</b>	<b>163</b>	<b>100.0</b>	<b>715</b>	<b>100.0</b>

Ward of Residence	2005		2006		2007		2008		2009		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Ward 1	17	15.0	25	21.4	27	15.3	27	18.6	35	21.5	131	18.3
Ward 2	32	28.3	20	17.1	46	26.0	29	20.0	31	19.0	158	22.1
Ward 3	<2	–	6	5.1	3	1.7	3	2.1	<3	–	15	2.1
Ward 4	9	8.0	3	2.6	17	9.6	13	9.0	13	8.0	55	7.7
Ward 5	12	10.6	18	15.4	25	14.1	20	13.8	24	14.7	99	13.8
Ward 6	13	11.5	18	15.4	24	13.6	20	13.8	21	12.9	96	13.4
Ward 7	13	11.5	13	11.1	19	10.7	15	10.3	14	8.6	74	10.3
Ward 8	11	9.7	6	5.1	15	8.5	14	9.7	23	14.1	69	9.7
Detention Center	<3	–	<3	–	<3	–	<3	–	<3	–	3	0.4
Unknown	3	2.7	7	6.0	<3	–	3	2.1	<3	–	15	2.1
<b>Total</b>	<b>113</b>	<b>100.0</b>	<b>117</b>	<b>100.0</b>	<b>177</b>	<b>100.0</b>	<b>145</b>	<b>100.0</b>	<b>163</b>	<b>100.0</b>	<b>715</b>	<b>100.0</b>

\*Detention center includes DC jail and juvenile detention center.

- The number of syphilis cases among men increased by 44% between 2005 and 2009.
- Blacks accounted for more than half of the primary and secondary syphilis cases (56.8%) reported between 2005 and 2009, followed by whites (35.1%).
- Almost a quarter (22.1%) of the syphilis cases lived in Ward 2 and the total cases living in Wards 1 and 2 represented more than 40% of the primary and secondary syphilis cases reported in the District.

**Figure 33. Rate of Primary and Secondary Syphilis Cases by Year of Diagnosis and Sex, District of Columbia, 2005-2009**



- Overall the rate of primary and secondary syphilis among men increased from 2005 to 2007 (45.1 cases per 100,000 population to 74.7 cases per 100,000 population) and then declined between 2007 and 2008 (74.7 cases per 100,000 population to 60.2 cases per 100,000 population).

**Table 23. Primary and Secondary Syphilis Rates in US Cities and Counties, Ranked by Rate per 100,000 population, 2009**

Rank <sup>†</sup>	County / City	Cases	Rate per 100,000
1	Miller County, AR	54	124.9
2	Jefferson County, TX	158	65.0
3	Bowie County, TX	53	57.4
4	Caddo County, LA	141	55.8
5	St. Landry County, LA	48	52.1
6	Fulton County, GA	396	39.0
7	San Francisco County, CA	314	38.8
13	Washington, DC	163	27.5

<sup>†</sup> Adapted from the 2009 CDC Sexually Transmitted Diseases Surveillance Report

- The District ranks 13<sup>th</sup> among US counties and cities with a rate of 27.5 syphilis cases per 100,000 population in 2009.



**Table 24. Number and Rate per 100,000 Population of Primary & Secondary Syphilis Cases by Year of Diagnosis, Sex, Race, Ethnicity, Age at Diagnosis, and Ward, District of Columbia, 2005-2009**

	2005		2006		2007		2008		2009		Total	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
<b>Type</b>												
Primary	18	3.1	16	2.7	44	7.5	33	5.6	30	5.0	141	4.8
Secondary	95	16.3	101	17.3	133	22.6	112	18.9	133	22.2	574	19.5
<b>Total</b>	<b>113</b>	<b>19.4</b>	<b>117</b>	<b>20.0</b>	<b>177</b>	<b>30.1</b>	<b>145</b>	<b>24.5</b>	<b>163</b>	<b>27.2</b>	<b>715</b>	<b>24.2</b>
<b>Sex</b>												
Female	11	4.2	5	1.9	5	1.9	5	1.9	10	3.7	36	2.7
Male	102	45.1	112	49.1	172	74.7	140	60.2	153	65.0	679	58.8
<b>Total</b>	<b>113</b>	<b>19.4</b>	<b>117</b>	<b>20.0</b>	<b>177</b>	<b>30.1</b>	<b>145</b>	<b>24.5</b>	<b>163</b>	<b>27.2</b>	<b>715</b>	<b>24.2</b>
<b>Race</b>												
Black	66	24.8	60	22.6	100	38.0	88	33.6	92	34.6	406	30.7
White	41	21.0	53	26.4	62	30.2	45	21.4	50	23.5	251	24.5
Asian	3	18.8	<3	--	4	23.4	<3	--	<3	--	13	15.3
AI/AN	<3	--	<3	--	<3	--	<3	--	<3	--	<3	--
Other	3	49.9	<3	--	8	126.2	7	105.8	11	164.1	29	89.2
Unknown	<3	--	<3	--	3	3.2	4	4.3	7	7.4	15	3.2
<b>Total</b>	<b>113</b>	<b>19.4</b>	<b>117</b>	<b>20.0</b>	<b>177</b>	<b>30.1</b>	<b>145</b>	<b>24.5</b>	<b>163</b>	<b>27.2</b>	<b>715</b>	<b>24.2</b>
<b>Ethnicity</b>												
Hispanic	4	10.4	6	15.6	19	48.9	13	32.3	18	44.1	60	30.3
Non-Hispanic	109	24.3	111	24.5	154	33.8	128	27.9	140	30.1	642	28.1
Unknown	<3	--	<3	--	4	4.3	4	4.3	5	5.3	13	2.8
<b>Total</b>	<b>113</b>	<b>19.4</b>	<b>117</b>	<b>20.0</b>	<b>177</b>	<b>30.1</b>	<b>145</b>	<b>24.5</b>	<b>163</b>	<b>27.2</b>	<b>715</b>	<b>24.2</b>
<b>Age Group</b>												
15-19	7	18.1	6	15.1	7	17.3	7	17.1	10	24.2	37	18.4
20-24	8	15.4	14	26.3	20	37.8	22	40.8	25	45.8	89	33.2
25-29	16	28.9	17	30.2	29	49.4	18	29.7	30	48.9	110	37.4
30-39	39	42.3	35	37.9	58	62.4	46	49.7	50	53.3	228	49.1
≥40	43	17.3	45	18.1	63	25.2	52	20.7	48	18.9	251	20.0
<b>Total</b>	<b>113</b>	<b>19.4</b>	<b>117</b>	<b>20.0</b>	<b>177</b>	<b>30.1</b>	<b>145</b>	<b>24.5</b>	<b>163</b>	<b>27.2</b>	<b>715</b>	<b>24.2</b>
<b>Ward of Residence</b>												
Ward 1	17	22.5	25	32.8	27	35.3	27	35.1	35	44.9	131	34.1
Ward 2	32	45.8	20	28.5	46	65.2	29	40.8	31	43.1	158	44.7
Ward 3	<3	--	6	7.9	3	3.9	3	3.9	<3	--	15	3.9
Ward 4	9	11.9	3	3.9	17	22.2	13	16.9	13	16.7	55	14.3
Ward 5	12	17.2	18	25.6	25	35.4	20	28.2	24	33.4	99	28.0
Ward 6	13	18.6	18	25.6	24	34.0	20	28.2	21	29.2	96	27.1
Ward 7	13	18.6	13	18.5	19	26.9	15	21.1	14	19.5	74	20.9
Ward 8	11	15.7	6	8.5	15	21.3	14	19.7	23	32.0	69	19.4
<b>Total</b>	<b>113</b>	<b>19.4</b>	<b>117</b>	<b>20.0</b>	<b>177</b>	<b>30.1</b>	<b>145</b>	<b>24.5</b>	<b>163</b>	<b>27.2</b>	<b>715</b>	<b>24.2</b>

- From 2005 to 2009, the rate of primary and secondary syphilis cases increased from 19.4 cases per 100,000 population to 27.2 cases per 100,000 population.
- The rate of syphilis was consistently highest among the 30-39 year old age group between 2005 and 2009, with the highest rate of 62.4 cases per 100,000 population in 2007. There was also a substantial increase in the rate of syphilis cases among 25-29 year olds between 2005 to 2009 (28.9 cases per 100,000 population to 48.9 per 100,000 population).



### Programmatic Priorities

Current STD Control Program priorities include screening, diagnosing, treating, and preventing infections among adolescents, men who have sex with men (MSM), and persons co-infected with HIV. The School-based STD Screening Program (SBSP) routinely screens thousands of senior high school (grades 9 through 12) students for *Chlamydia trachomatis* and *Neisseria gonorrhoeae*. The program also collaborates with the Department of Employee Services (DOES) to provide urine-based screening to the Summer Youth Employment Program (SYEP) participants. We not only actively identify hundreds of infected youth in non-traditional settings, we also provide truncated sex education, on-site STD treatment, risk reduction counseling, partner management, and linkages to additional services, if needed. The program has collaborated with Metro TeenAIDS to start addressing those high-risk adolescents with repeated STDs over time in an attempt to prevent them from eventually becoming infected with HIV. We also initiated a collaboration with Unity Health Care, supported by Gilead Sciences, that provides STD treatment and HIV and pregnancy tests as part of the school-based STD program.

In addition, the Program has created a Gonorrhea/Chlamydia Reactor Grid to focus our limited resources on following-up with youth (<25 years of age), pregnant women, and HIV infected persons who are diagnosed with gonorrhea and/or chlamydia. This resource will help us target infections among the most vulnerable sub-populations.

The re-emergence of syphilis in Washington, DC from 2000 to present is predominately among MSM of all races and ethnicities. With many of these cases, traditional partner management is ineffective because their sexual encounters are pseudo-anonymous, i.e. they don't know the person's full name, phone number, or address. Consequently, the District started an Internet Partner Notification (IPN) program in March 2007 for syphilis cases. This allows for partner notification of these pseudo-anonymous partners that are met online. IPN augments traditional syphilis case management and aids in the location, notification, testing, and treatment of partners. The program is exploring eventually using IPN for HIV cases as well.

Much of our primary and secondary syphilis is among MSM and is reported from sites other than the publicly sponsored SE STD Clinic. In response, we have embedded a Disease Investigation Specialist at Whitman-Walker Clinic, the largest healthcare provider for the LGBT population in Washington, DC. This has facilitated more timely interviews with syphilis cases and improved the location, testing, and treatment of their partners. We hope to expand this initiative to other MSM providers in the community.

In addition, we have collaborated with the Gilead Sciences and Whitman-Walker Clinic to offer STD and HIV screening in the Crew Club, the city's only bathhouse serving MSM. This effort will enable us to engage hard-to-reach men who do not self-identify as gay or bisexual but still have sex with other men.

As technology evolves, STD programs should also evolve. Besides IPN, our program is also using the internet to facilitate partner notification of other STDs. Developed by Internet Sexuality Information Services, Inc. (ISIS), inSPOT ([www.inSPOT.org](http://www.inSPOT.org)) provides a completely anonymous way to inform partners of persons diagnosed and treated for STDs about their exposure and provides immediate linkages to information and testing locations. We are also partnering with ISIS to provide text reminders to adolescents screened during the SBSP to call in for their results. This initiative has been overwhelmingly successful and we are going to evaluate this collaboration to confirm that it does increase the number of tested adolescents aware of their infection status and see if it improves treatment and linkage to additional resources. We hope to start using text messages to remind cases to get their partners treated and get re-screened for STDs 3 months after treatment.

The SE STD Clinic, the only publicly funded clinic in the District, began opt-out HIV testing in July 2009. Since then, not only have more clients been screened for HIV, but more HIV infections have also been identified. Clients with a previous history of HIV infection that do not have a medical home are linked into comprehensive care.

## Section VII. Viral Hepatitis

Hepatitis is defined as inflammation or swelling of the liver. The most common types of viral hepatitis in the United States are hepatitis A virus, hepatitis B virus, and hepatitis C virus. Although these viruses affect the liver, symptoms, severity, and primary modes of transmission differ based on the type of hepatitis. The following sections present a detailed look at persons that met the minimum surveillance diagnostic criteria for viral hepatitis between 2005 and 2009. This report does not describe all persons in the District living with viral hepatitis and does not provide information on clinical disease activity or severity.

### Understanding Viral Hepatitis Surveillance for the District of Columbia

The purpose of the viral hepatitis surveillance system in DC is to systematically assess the burden of disease, monitor trends, and identify possible outbreaks.

Viral hepatitis is a nationally and locally reportable disease. The District of Columbia municipal code (22 DCMR Chapter 2 201.5) mandates reporting of “hepatitis, infections and serum” by healthcare providers, medical institutions such as hospitals, and laboratories. Hepatitis cases are primarily reported to the DOH by laboratory reports. Cases are also identified through reports from health care providers, hospitals, clinics and reports from other health departments. In some instances, cases require additional information. This is acquired by hepatitis program investigators who contact providers and patients to obtain more complete information to classify the disease. Of note, no federal funding is currently available to support or strengthen case surveillance for viral hepatitis.

The District’s hepatitis surveillance program uses a confidential name-based Viral Hepatitis Registry (VHR) which captures basic demographic data, diagnosis, and event/illness onset dates when available. In addition, supplemental information collected through the case investigation process is documented, and often includes clinical features, serologic test results, and risk factors for infection. This information is compiled and used to classify cases according to the CDC/Council of State and Territorial Epidemiologists (CSTE) and DC-specific case definitions. Locally, confirmed chronic hepatitis B or C cases are reported cases with a complete series of labs. A probable case of chronic hepatitis B or C has a combination of reported lab results but an incomplete series of results necessary to confirm a diagnosis. A suspect case of chronic hepatitis C has a single positive lab result indicative of possible chronic hepatitis C. The hepatitis data reported here reflect persons with acute hepatitis A, chronic hepatitis B, and chronic hepatitis C infections.

For this report, unless otherwise noted “Chronic Hepatitis B” refers to a confirmed or probable cases; “Chronic Hepatitis C” refers to a confirmed, probable, or suspect cases; and “Acute Hepatitis A” refers to a confirmed case.

In late 2007 HAHSTA conducted an assessment of the VHR and created a transition plan that resulted in a new and expanded registry that allows for thorough and accurate analysis of case reports. The plan involved development of local hepatitis surveillance and quality control guidelines, extensive reorganization of historical records, de-duplication of cases, and data cleaning. Pediatric cases of hepatitis B are reported to HAHSTA and case investigation falls under the jurisdiction of the DOH Division of Immunizations. However, pediatric cases of chronic hepatitis B are incorporated into the data presented here.

### Chronic Hepatitis B

Hepatitis B virus is transmitted through contact with bodily fluids of an infected person, including blood, semen, and vaginal fluid. Chronic hepatitis B begins as an acute infection, but in some people the immune system fails to clear the infection and results in chronic disease. According to the CDC, among persons exposed to hepatitis B virus, the risk for chronic infection varies according to the age at infection and is greatest among young children. Approximately 90% of infants and 25-50% of children less than 5 years of age will remain chronically infected with hepatitis B. By contrast, approximately 95% of adults recover completely from acute infection and will develop chronic disease. Between 2005 and 2009, 2,893 people were reported with chronic hepatitis B in the District. More than half (59.2%) of these cases were men. Race and ethnicity data was missing for 65.3% of cases. Among

those with available information, 73.5% were black. In addition, more than half of the cases (51.8%) of the cases were between 30 and 49 years of age.

**Table 25. Reported Chronic Hepatitis B Cases by Gender, Race/Ethnicity, and Age at Diagnosis, and Year of Diagnosis, District of Columbia, 2005 – 2009**

Chronic Hepatitis B Cases*	Cumulative through 2009	
	N	%
<b>Gender</b>		
Male	1,714	59.2
Female	1,165	40.3
Transgender	<3	–
Unknown	14	0.5
<b>Total</b>	<b>2,893</b>	<b>100.0</b>
<b>Race/Ethnicity</b>		
Black	741	25.6
White	87	3.0
Hispanic	34	1.1
Asian/Pacific Islander	128	4.4
American Indian	3	0.1
Mixed	15	0.5
Unknown	1,885	65.3
<b>Total</b>	<b>2,893</b>	<b>100.0</b>
<b>Age at Diagnosis**</b>		
0 - 12	10	0.3
13 - 19	68	2.3
20 - 29	483	16.7
30 - 39	752	26.0
40 - 49	745	25.8
50 - 59	511	17.7
≥60	323	11.1
Unknown	<3	–
<b>Total</b>	<b>2,893</b>	<b>100.0</b>
<b>Year of Diagnosis</b>		
2005	486	16.8
2006	726	25.1
2007	729	25.2
2008	477	16.5
2009	475	16.4
<b>Total</b>	<b>2,893</b>	<b>100.0</b>
<b>Case Classification</b>		
Confirmed	640	22.1
Probable	2,253	77.9
<b>Total</b>	<b>2,893</b>	<b>100.0</b>

\*The 2009 Annual Report included all cases of chronic hepatitis B reported to HAHSTA, regardless of the case's residence. This year's report includes DC cases only, or cases that were living within DC at the time of diagnosis.

- The number of reported chronic hepatitis B cases in the District of Columbia has decreased by 34.9% since 2007.
- From 2005 to 2009, more than half of chronic hepatitis B cases (59.2%) were among men.
- Of the 2,893 chronic hepatitis B cases, 65.3% of the cases are of unknown race. The absence of race information is due to the passive nature of hepatitis surveillance. Laboratory reports do not typically include race when a positive test result is reported.




- Among those with known race, blacks accounted for 74.0% of the cases.
- Nationally, persons at greatest risk for chronic hepatitis B are often immigrants from endemic areas outside of the United States. Local data are currently unable to capture this information.
- More than half (51.8%) of cases are among those between 30 – 49 years of age.

### Chronic Hepatitis C

Hepatitis C is transmitted through blood and the most common mode of transmission is sharing contaminated injection drug equipment, needles, or syringes. Hepatitis C is also transmitted through sexual contact with an infected person, needle sticks, and from pregnant women to their children, although these modes occur less frequently. According to the CDC, of every 100 persons infected with hepatitis C approximately:

- 75-85 will develop chronic infection
- 60-70 will develop chronic liver disease
- 5-20 will develop cirrhosis, or scarring of the liver, 20-30 years later
- 1-5 will die from the consequences of chronic infection (liver cancer or cirrhosis)

Chronic hepatitis C is the leading cause of liver transplantation in the US. However, infected persons can take measures to prolong the health of their liver. These precautions include reducing or stopping alcohol use, following a healthy diet, and checking with health professionals before taking any medications. From 2005-2009, there were 12,012 reports of chronic hepatitis C in the District. Nearly two-thirds (65.0%) of these cases were men. As with hepatitis B, almost two-thirds (64.4%) of the cases had unknown race/ethnicity. Among cases with known race however, 91.4% of the cases were black. Nearly all (90.9%) chronic hepatitis C cases were 40 years of age and older, with the largest proportion (47.6%) occurring among those 50 to 59 years of age.

<p><b>DC Partnership for HIV/AIDS Progress (DC PFAP) Subspecialty Clinics</b></p> <p>A Referral Guide for Providers</p>  <p>Refer Patients with Viral Hepatitis for:</p> <ul style="list-style-type: none"> <li>• Hepatitis Consultations</li> <li>• Hepatitis Treatment</li> <li>• Hepatitis Management</li> </ul> <p></p>	<p><b>DC Partnership for HIV/AIDS Progress (DC PFAP) Subspecialty Clinics</b></p> <p>A partnership program between the DC Department of Health and NIH</p> <p>Providing integrated subspecialty medical services within existing community clinics to expand access and research for people living with HIV/AIDS in the District of Columbia</p> <p>We will work closely with primary care providers to co-manage patients</p> 
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**Table 26. Reported Chronic Hepatitis C Cases by Gender, Race/Ethnicity, and Age at Diagnosis, Year of Diagnosis, and Case Classification, District of Columbia, 2005-2009**

Chronic Hepatitis C Cases	Cumulative through 2009	
	N	%
<b>Gender</b>		
Male	7,809	65.0
Female	4,142	34.5
Transgender	<3	—
Unknown	59	0.5
<b>Total</b>	<b>12,012</b>	<b>100.0</b>
<b>Race/Ethnicity</b>		
Black	3,905	32.5
White	195	1.6
Hispanic	54	0.4
Asian/Pacific Islander	105	0.9
American Indian	3	0.0
Mixed	11	0.1
Unknown	7,739	64.4
<b>Total</b>	<b>12,012</b>	<b>100.0</b>
<b>Age at Diagnosis</b>		
0 - 12	32	0.3
13 - 19	42	0.3
20 - 29	361	3.0
30 - 39	650	5.4
40 - 49	3,462	28.8
50 - 59	5,714	47.6
≥60	1,746	14.5
Unknown	5	0.0
<b>Total</b>	<b>12,012</b>	<b>100.0</b>
<b>Year of Diagnosis</b>		
2005	1,349	11.2
2006	2,073	17.3
2007	3,135	26.1
2008	2,718	22.6
2009	2,737	22.8
<b>Total</b>	<b>12,012</b>	<b>100.0</b>
<b>Case Classification</b>		
Confirmed	9,182	76.4
Probable	124	1.0
Suspect	2,704	22.5
<b>Total</b>	<b>12,012</b>	<b>100.0</b>

- Two thirds (65.0%) of reported chronic hepatitis C cases were diagnosed among men in the District.
- About two-thirds (64.4%) of individuals diagnosed with hepatitis C were of unknown race. Among cases whose race was known, 91% of cases were black.
- Approximately 2 out of every 100 DC residents are living with chronic hepatitis C. Among these residents, almost half (47.6%) were diagnosed between 50-59 years of age.
- The populations most impacted by chronic hepatitis C in the District are consistent with national figures. These groups were likely infected prior to the introduction of improved blood product screening, implementation of universal precautions, and educational and needle exchange programs for injection drug users.

#### Acute Hepatitis A

Hepatitis A infection is an acute or newly occurring liver disease, which can last from a few weeks to several months. The majority of people with hepatitis A are able to clear the infection from their bodies and their symptoms can improve without treatment. Once exposed to hepatitis A either by vaccination or natural

infection, a person develops lifelong antibodies that will protect them against the virus should they be exposed again. Hepatitis A is spread by ingesting fecal matter contaminated by the hepatitis A virus. Common modes of transmission include direct contact with objects, foods, or drinks that have been handled by an infected individual, engaging in oral-anal sexual activity (rimming) with an infected person, eating contaminated produce, or eating raw or undercooked mollusks from contaminated waters.

**Table 27. Reported Acute Hepatitis A Cases by Gender, Race/Ethnicity, and Age at Diagnosis, Year of Diagnosis, District of Columbia, 2005-2009**

Cases of Acute Hepatitis A	Cumulative through 2009	
	N	%
<b>Gender</b>		
Male	117	64.6
Female	62	34.3
Transgender	<3	--
Unknown	<3	--
<b>Total</b>	<b>181</b>	<b>100.0</b>
<b>Race/Ethnicity</b>		
Black	57	31.5
White	24	13.3
Hispanic	6	3.3
Asian/Pacific Islander	<3	--
Mixed	3	1.7
Unknown	90	49.7
<b>Total</b>	<b>181</b>	<b>100.0</b>
<b>Age at Diagnosis</b>		
0 - 12	5	2.8
13 - 19	6	3.3
20 - 29	30	16.6
30 - 39	33	18.2
40 - 49	25	13.8
50 - 59	48	26.5
≥60	34	18.8
<b>Total</b>	<b>181</b>	<b>100.0</b>
<b>Year of Diagnosis</b>		
2005	23	12.7
2006	30	16.6
2007	41	22.7
2008	37	20.4
2009	50	27.6
<b>Total</b>	<b>181</b>	<b>100.0</b>

- Two-thirds (64.6%) of acute hepatitis A cases occurred among men.
- Almost half (49.7%) of individuals diagnosed with hepatitis A were of unknown race. Among those whose race was known, 62.6% of the cases were black.
- Acute hepatitis A is most common among the 50-59 age group (26.5%), and 45.3% of all cases were 50 years of age or older.
- Hepatitis A diagnoses have more than doubled in the past 5 years, with 50 cases diagnosed in 2009 compared to 23 in 2005.

#### Programmatic Priorities

Viral hepatitis infections are a major public health problem in the District of Columbia. The Viral Hepatitis program at HAHSTA works to effectively monitor the status of hepatitis disease, reduce transmission and improve health outcomes for individuals infected with hepatitis. Efforts are currently underway to scale up prevention and treatment of hepatitis. Through the Partnership for HIV/AIDS Progress among the National Institutes of Health, HAHSTA and community partners, there are four new subspecialty clinics on HIV and hepatitis C. HAHSTA has



facilitated trainings of substance abuse agencies serving at-risk populations in DC on prevention, harm reduction, and screening for hepatitis. The DC Immunization Program works diligently to prevent perinatal transmission of hepatitis B and significant efforts are also underway to promote and scale-up vaccination among at-risk persons in DC. Program staff work with agencies to inform residents of the hepatitis resources available within the District and to educate infected persons about the importance of monitoring liver function and ways to reduce further liver damage.

### Hepatitis Vaccinations

Hepatitis A and B are vaccine-preventable diseases. In 1996 it was recommended that newborns receive hepatitis B vaccinations as well as all children attending 6<sup>th</sup> grade or lower. Beginning in 2001, hepatitis A vaccinations were added as a part of the standard immunizations given to children age 1 and older. The CDC Advisory Committee of Immunization Practices (ACIP) has recommended hepatitis A vaccination for illicit drug users since 1996 and hepatitis B vaccination for persons with behavioral risks for hepatitis B transmission since 2006. Because the District has high rates of HIV infection and substance abuse among adults, the DOH implemented an additional intervention strategy known as the Adult Hepatitis B Vaccination Initiative. This strategy seeks to immunize the following high-risk priority populations:

- Persons being treated for sexually transmitted diseases
- Men who have sex with men
- Persons who are incarcerated or newly released from prison
- Persons living with or at risk for HIV/AIDS
- Intravenous drug users and those in substance abuse treatment programs
- Persons who are homeless or living in shelters
- Household and sexual contacts of persons diagnosed with acute hepatitis A or B
- Immigrant and refugee populations

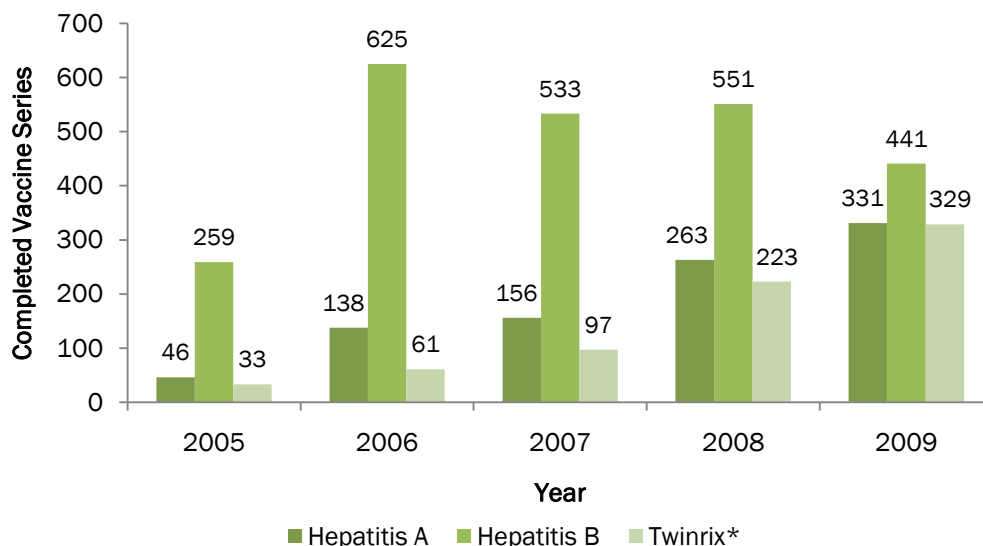
As a result of this initiative the participating sites scaled up provision of hepatitis vaccinations at their facilities and community health fairs.

### Sub-Specialty Clinics

In 2010, the Partnership for HIV/AIDS Progress launched integrated subspecialty medical services within existing community clinics to expand access and research for people living with HIV/AIDS in DC. The Subspecialty Clinics providing enhanced services to persons with and without HIV and hepatitis B or hepatitis C. The clinics are based in four existing HIV health centers in the District.



**Figure 34. Completed Hepatitis A, B and Twinrix Vaccine Series Vaccine Type and Year, District of Columbia, 2005-2009**



\*Twinrix vaccine contains hepatitis A and B antigens and requires 3 doses at 0, 1, and 6 month intervals.

- The total number of adults completing the hepatitis A vaccine series increased from 46 in 2005 to 331 in 2009.
- Although the number of adults completing the hepatitis B vaccine series decreased between 2006 and 2009, the number of adults that completed the Twinrix series increased from 33 to 329. The Twinrix series contains both hepatitis A and B antigens.

Ongoing and more complete surveillance is needed to better understand the trends in hepatitis infection in the District. A continued analysis of hepatitis case reports over time will help to better direct funding efforts to prevent future cases from occurring and to direct resources for care and treatment of persons living with viral hepatitis.

The viral hepatitis data included in this report provides a glimpse into the magnitude of hepatitis and its impact on the lives of District residents. However the ultimate utility of this information resides in its ability to inform policy decisions and public health program implementers.

## Section VIII. Tuberculosis

### Understanding Tuberculosis Surveillance

Tuberculosis (TB) is an infection caused by the bacteria *Mycobacterium tuberculosis*. TB is a disease that is spread from person to person through the air. This can occur by sharing airspace for an extended period of time in an enclosed setting such as in a small office. TB usually affects the lungs. The bacteria are put into the air when a person with active TB of the lungs coughs, sneezes, laughs, or sings. Some people exposed to TB (close contacts) will be infected with TB.

TB skin tests help to identify persons who have been infected with TB. Most people who are infected with TB do not develop active TB disease for many years. Latent TB infection (LTBI) is the condition in which TB bacteria are alive but inactive in the body. People with LTBI have no symptoms, do not feel sick, do not spread TB to others, but usually have a positive skin test reaction. People with LTBI may develop active TB disease if they do not receive treatment for their infection. Persons with weakened immune systems (e.g. those with HIV) are at greater risk for progressing from LTBI to active TB disease.

Active TB is defined as an illness in which TB bacteria are multiplying and attacking a part of the body, usually the lungs. Symptoms of TB may include a cough that lasts for three weeks or more, blood in your sputum (concentrated saliva), loss of appetite, drenching night sweats, unexplained weight loss, fever, extreme fatigue (tiredness), sore throat or hoarseness. A person with active TB disease may be infectious and spread TB bacteria to others. Tuberculosis is a disease that can be cured if treated properly.

In the District of Columbia, active tuberculosis (TB) is a reportable condition by both medical providers and laboratories. Medical providers must report anyone diagnosed with or who has symptoms suspicious of TB. Laboratories are required to report preliminary tests indicative of active TB as well as confirmed tests. In any given year, approximately 25-30% of initial reports of persons with suspicious clinical or laboratory findings will be ultimately verified by laboratory confirmation or clinical case definition as TB. Receiving these initial reports allows the Department of Health to begin immediate medical and epidemiological follow-up on these suspect cases. This may interrupt disease transmission while the person waits for final results, which could take as long as eight weeks.

The following section describes TB surveillance data reported in the District of Columbia from 2005 to 2009. It is important to note that the cases reported in the tables represent cases of active TB disease and not latent TB infection (LTBI). LTBI is not a reportable condition in the District.

### Reduction in TB

The District has experienced considerable success over the last five years in reducing the number of TB cases and consequently the TB case rate among District residents. In 2009, 41 cases of TB were reported, a 25.4% decrease from the 55 TB cases reported in 2005. During this time the TB cases rate fell from 9.4 to 7.7 per 100,000 people. These decreases are very promising for the District's goal of eliminating TB.

Overall, 62.3% of reported TB cases were among men. In 2009 however, more than half (58.5%) of cases were among women. The majority of cases (88.2%) during this time period were 25-64 years of age.

While the proportion of foreign-born cases has steadily increased, the actual number of cases among foreign born persons has changed only slightly.

Both the absolute number of cases and the case rate in US-born blacks have substantially decreased over time with the number of US-born blacks decreasing from 28 cases in 2005 to 16 cases in 2009.

All positive TB cultures are tested for susceptibility to the drugs used in treatment. Multi-drug resistant (MDR) TB, or TB that is resistant to two of the first line treatment agents (isoniazid and rifampicin) has been observed infrequently in the District. Over the past five years, the DOH has found very little MDR TB. No cases of MDR TB have been reported in the District since 2006 when there were two.

The DOH attributes the successful reduction in TB cases and the low number of drug resistant cases to using Directly Observed Therapy (DOT) as the standard of care for all active TB cases, the provision of cases management services for all active TB cases, and rapid contact investigations which include education and evaluation.

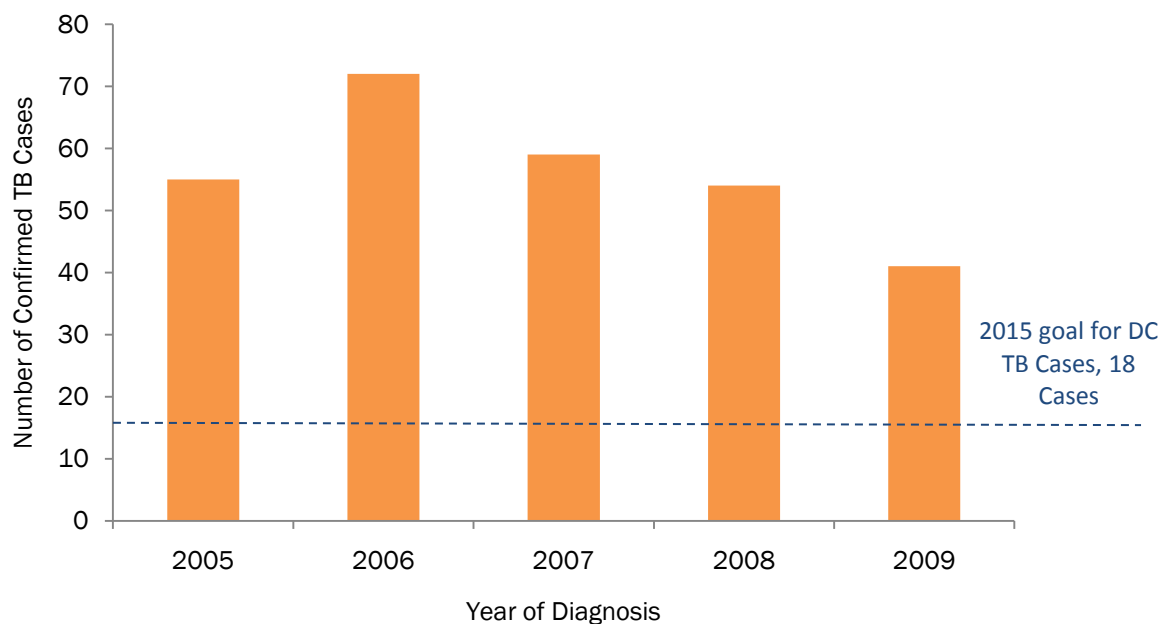
**Table 28. Reported TB Rate per 100,000 People and Proportion by Selected Characteristics, District of Columbia, 2005-2009**

	2005		2006		2007		2008		2009		Total	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
District Total	55	9.4	72	12.3	59	10.0	54	9.1	41	7.7	281	--
	N	%	N	%	N	%	N	%	N	%	N	%
<b>Disease Site</b>												
Pulmonary	36	65.5	58	80.6	47	79.7	39	72.2	32	78.0	212	75.4
Extra Pulmonary	15	27.3	12	16.7	11	18.6	15	27.8	9	22.0	62	22.1
Both	4	7.3	<3	--	<3	--	<3	--	<3	--	7	2.5
Total	55	100.0	72	100.0	59	100.0	54	100.0	41	100.0	281	100.0
<b>Sex</b>												
Males	35	63.6	49	68.1	40	67.8	34	63.0	17	41.5	175	62.3
Females	20	36.4	23	31.9	19	32.2	20	37.0	24	58.5	106	37.7
Total	55	100.0	72	100.0	59	100.0	54	100.0	41	100.0	281	100.0
<b>Age</b>												
0 - 5	<3	--	<3	--	<3	--	3	5.6	<3	--	8	2.8
5 - 14	<3	--	4	5.6	<3	--	<3	--	<3	--	4	1.4
15 - 24	3	5.5	<3	--	3	5.1	9	16.7	4	9.8	21	7.5
25 - 44	20	36.4	30	41.7	19	32.2	16	29.6	14	34.1	99	35.2
45 - 64	27	49.1	23	31.9	24	40.7	21	38.9	14	34.1	109	38.8
≥65	4	7.3	12	16.7	11	18.6	5	9.3	8	19.5	40	14.2
Total	55	100.0	72	100.0	59	100.0	54	100.0	41	100.0	281	100.0
<b>Race/Ethnicity</b>												
Asian	3	5.5	4	5.6	4	6.8	3	5.6	3	7.3	17	6.0
Black non-Hispanic	46	83.6	57	79.2	39	66.1	41	75.9	26	63.4	209	74.4
Black Hispanic	<3	--	<3	--	<3	--	<3	--	<3	--	<3	--
Native Hawaiian/PI	<3	--	<3	--	<3	--	<3	--	<3	--	<3	--
White non-Hispanic	<3	--	3	4.2	<3	--	<3	--	5	12.2	8	2.8
White Hispanic	6	10.9	8	11.1	15	25.4	9	16.7	7	17.1	45	16.0
Multiple Races	<3	--	<3	--	<3	--	<3	--	<3	--	<3	--
Total	55	100.0	72	100.0	59	100.0	54	100.0	41	100.0	281	100.0
<b>US Born vs. Foreign Born</b>												
Foreign Born	25	45.5	33	45.8	30	50.8	30	55.6	19	46.3	137	48.8
US Born-Black	28	50.9	36	50.0	26	44.1	23	42.6	16	39.0	129	45.9
US Born-All Other Races	<3	--	3	4.2	3	5.1	<3	--	6	14.6	14	5.0
Unknown	<3	--	<3	--	<3	--	<3	--	<3	--	<3	--
Total	55	100.0	72	100.0	59	100.0	54	100.0	41	100.0	281	100.0
<b>Homeless w/in past year</b>												
Total	5	9.1	7	9.7	4	6.8	5	9.3	<3	--	23	29.1
<b>Alcohol/Substance Use</b>												
Total	12	21.8	5	6.9	15	25.4	4	7.4	14	34.1	50	17.8

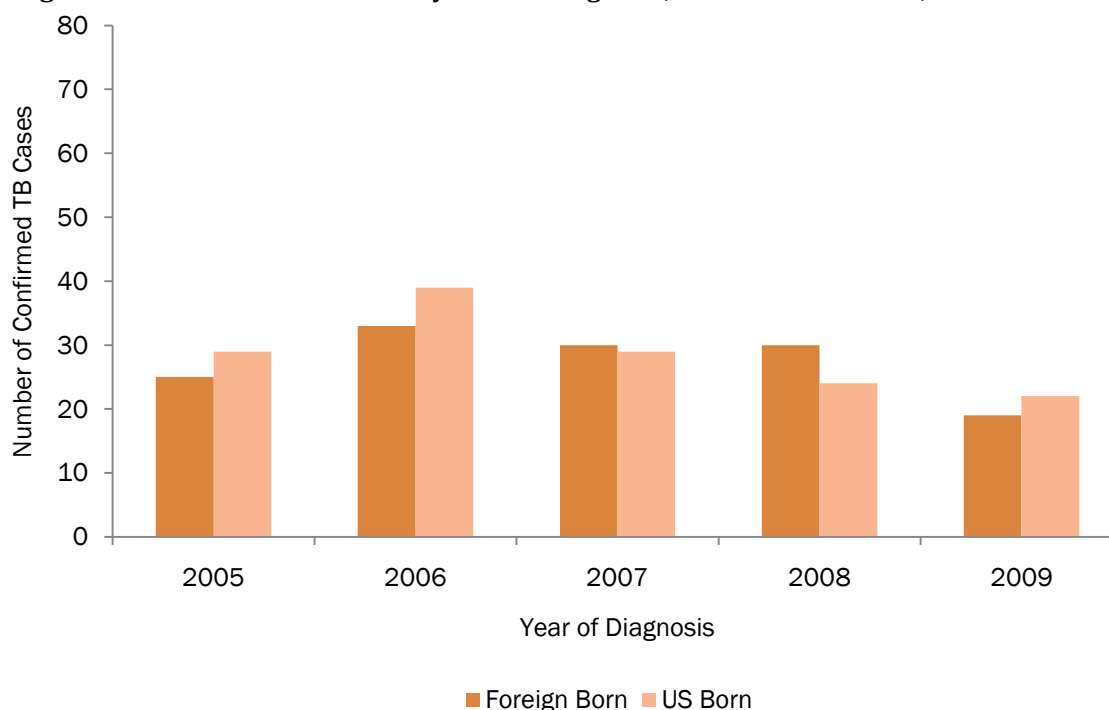
- Three-quarters (74.4%) of all TB cases from 2005 to 2009 were among non-Hispanic blacks.

- In 2009, non-Hispanic blacks accounted for 63.4% of all confirmed TB cases (a decrease from 75.9% in 2008), followed by white Hispanics (17.1%) and white non-Hispanics (12.2%).
- From 2005 to 2008, 62.3% of the TB cases were among men. In 2009, however, there were more TB cases diagnosed among women (58.5%) than men.
- Almost half (48.8%) of TB cases in the District from 2005 to 2009 were among foreign born residents.
- Between 2005 and 2009, the number of TB cases that reported using alcohol or other substances was the highest in 2009. In 2008, only 7.4% of all TB cases used alcohol or other substances, however in 2009 34.1% of all cases used alcohol or other substances.

Figure 35. Reported TB Cases by Year of Diagnosis, District of Columbia, 2005-2009



- For this five year reporting period, the total number of TB cases was highest in 2006. There has been a 43.1% decrease in total cases since then.

**Figure 36. Foreign Born and US-Born TB Cases by Year of Diagnosis, District of Columbia, 2005-2009**

- More than half of the TB cases diagnosed in 2005, 2006 and 2009 were among US born residents. However in 2007 and 2008, slightly more cases were diagnosed among foreign born District residents.

#### Programmatic Priorities

The TB program carries out activities that will contribute to the prevention, control, and eventual elimination of TB in the District. Program priorities include:

- Diagnosis, management, and treatment of all reported TB cases
- Evaluation and treatment, as appropriate of persons found to be close contacts of persons with pulmonary TB
- Identification and treatment, as appropriate, of others at high risk for developing pulmonary TB

The primary methods used to achieve the program priorities include the following: comprehensive case management; field outreach for contact investigations; medication adherence strategies, such as Directly Observed Therapy; application of the most current diagnostic techniques; consultation and education of medical and community partners; and the collection, analysis, and dissemination of data.

By 2015 the TB program intends to reduce TB case rates among all District residents and in selected subpopulations to:

- Reduce TB in District residents to 3.0 cases per 100,000
- Reduce TB in US born persons to 0.7 cases per 100,000
- Reduce TB in foreign-born persons to 18.4 cases per 100,000
- Reduce TB in US-born blacks to 1.3 cases per 100,000
- Reduce TB in children less than 5 years of age to 0.4 cases per 100,000

## Section IX. Disease Co-Infections

Persons living with HIV/AIDS are often infected with other communicable diseases. This section of the report focuses on HIV positive individuals co-infected with primary and secondary syphilis, chlamydia, gonorrhea, chronic hepatitis B and C, and tuberculosis (TB).

### Methods

Disease co-infections were identified by matching HIV/AIDS case data to the STD and hepatitis registries (HIV/Tuberculosis co-infections are reported by TB program). All HIV/AIDS cases living at the end of 2004, as well as all HIV/AIDS cases diagnosed between 2005 and 2009 were included in the HIV match population. The STD and hepatitis registry match populations included syphilis, chlamydia, gonorrhea, and chronic hepatitis B and C cases reported between 2005 and 2009. In order to accurately match the data registries the link program, Link-King®, was used. Cases were matched by last name, first name, date of birth, sex, and race and potential matches were reviewed for accuracy.

### Summary

There were 330 HIV cases co-infected with syphilis between 2005 and 2009 and almost all (n=326) were men. More than half of these men (54.6%) were black and approximately three-quarters (74.5%) were diagnosed with HIV between 20 and 39 years of age.

Among HIV positive individuals, 490 were co-infected with chlamydia and 564 were co-infected with gonorrhea between 2005 and 2009. The majority of these co-infected cases were men (63.5% for HIV/chlamydia co-infection and 80.5% for HIV/gonorrhea co-infection) and black (80.6% for HIV/chlamydia co-infection and 79.4% HIV/gonorrhea co-infection). The majority of these cases were infected with HIV between 20 and 39 years of age (80.6% for HIV/chlamydia co-infection and 70.4% HIV/ gonorrhea co-infection), similar to HIV/syphilis co-infections.

There were 456 HIV positive individuals reported with chronic hepatitis B between 2005 and 2009. Similar to the HIV/STD co-infected cases, the majority of the HIV/hepatitis B co-infections were men (74.9%) and black (84.4%). The most commonly reported HIV mode of transmission was MSM sexual contact (40.8%).

There were 1,510 HIV positive individuals reported with chronic hepatitis C between 2005 and 2009. This represents 12.6% of all chronic hepatitis C cases reported in the District during this time period. Again, more than two-thirds (68.9%) of these co-infected persons were men and almost all (90.5%) were black. The most commonly reported HIV mode of transmission among HIV/hepatitis C co-infections was injection drug use (44.9%).

Lastly, 27.9% of TB cases reported between 2005 and 2009 were also infected with HIV.

Syphilis and HIV Co-Infection**Table 29. Syphilis/HIV Co-Infections among Men by Selected Characteristics, District of Columbia, 2005-2009**

Syphilis HIV Co-infections		
	N	%
Sex*		
Male	326	100.0
<b>Total</b>	<b>326</b>	<b>100.0</b>
Race		
White	115	35.3
Black	178	54.6
Hispanic	25	7.7
Other*	8	2.5
<b>Total</b>	<b>326</b>	<b>100.0</b>
Age at HIV Diagnosis		
13-19	24	7.4
20-29	106	32.5
30-39	137	42.0
40-49	47	14.4
50-59	11	3.4
≥60	<3	--
<b>Total</b>	<b>326</b>	<b>100.0</b>
Year of Syphilis Reporting		
2005	47	14.4
2006	54	16.6
2007	86	26.4
2008	70	21.5
2009	69	21.2
<b>Total</b>	<b>326</b>	<b>100.0</b>

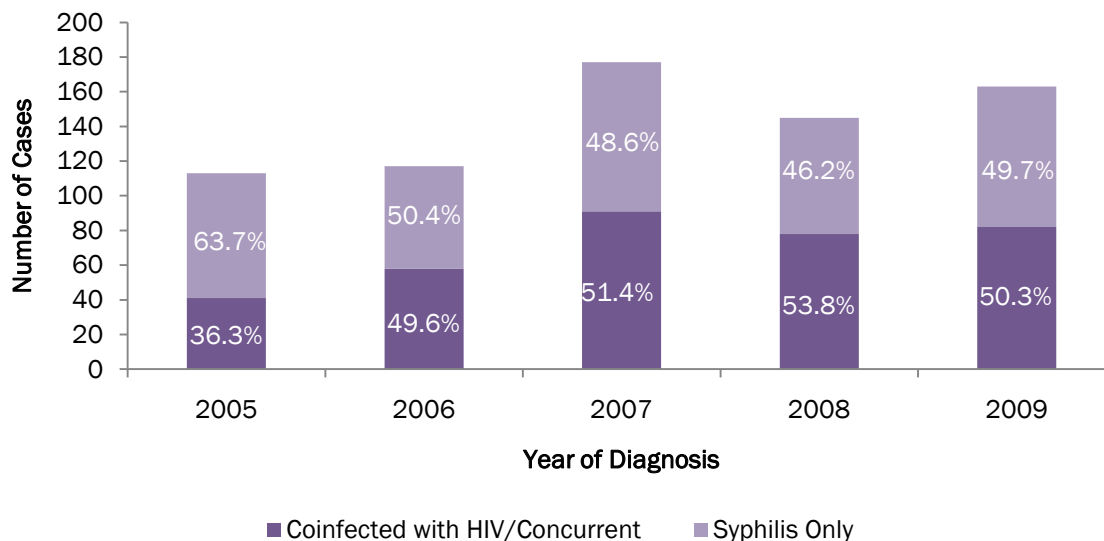
*\*Note: Over the 5 year period, only 4 female HIV/syphilis co-infections were reported.*

- More than half (54.6%) of the HIV/syphilis co-infected men were black.
- The largest proportion of HIV/syphilis co-infections (74.5%) were between 20 and 39 years of age.



The figure below depicts the total number of syphilis cases reported from 2005 to 2009 and the proportion that were co-infected with HIV at the time of their syphilis diagnosis. This excludes HIV/syphilis co-infections in which the person was infected with HIV more than 3 months after the date of syphilis infection.

**Figure 37. Syphilis and HIV Co-Infection by Year of Syphilis Diagnosis, District of Columbia, 2005-2009**



- Between 2005 and 2009 the number of newly diagnosed syphilis cases that were co-infected with HIV increased by 38.6%.

Chlamydia and HIV Co-Infection**Table 30. Chlamydia/HIV Co-Infection by Selected Characteristics, District of Columbia, 2005-2009**

Chlamydia and HIV Co-infection		
	N	%
<b>Sex</b>		
Male	311	63.5
Female	176	35.9
Unknown	<3	—
<b>Total</b>	<b>490</b>	<b>62.7</b>
<b>Race</b>		
White	64	13.1
Black	395	80.6
Hispanic	23	4.7
Other*	8	1.6
<b>Total</b>	<b>490</b>	<b>100.0</b>
<b>Age at HIV Diagnosis</b>		
13-19	53	10.8
20-29	197	40.2
30-39	150	30.6
40-49	74	15.1
50-59	13	2.7
≥60	4<13	—
<b>Total</b>	<b>490</b>	<b>100.0</b>
<b>Year of Chlamydia Reporting</b>		
2005	64	13.1
2006	84	17.1
2007	124	25.3
2008	119	24.3
2009	99	20.2
<b>Total</b>	<b>490</b>	<b>100.0</b>

- Approximately two-thirds (63.5%) of HIV positive individuals co-infected with chlamydia were men.
- The majority of chlamydia and HIV co-infections were also black (80.6%).
- The largest proportion (40.2%) of chlamydia and HIV co-infections were between 20 and 29 years of age.

Gonorrhea and HIV Co-Infection**Table 31. Gonorrhea/HIV Co-Infection by Selected Characteristics, District of Columbia, 2005-2009**

Gonorrhea and HIV Co-infection		
	N	%
<b>Sex</b>		
Male	454	80.5
Female	109	19.3
Unknown	<3	--
<b>Total</b>	<b>564</b>	<b>100.0</b>
<b>Race</b>		
White	85	15.1
Black	448	79.4
Hispanic	20	3.6
Other*	11	1.9
<b>Total</b>	<b>564</b>	<b>100.0</b>
<b>Age at HIV Diagnosis</b>		
13-19	64	11.4
20-29	204	36.2
30-39	193	34.2
40-49	87	15.4
50-59	12	2.1
≥60	4	0.7
<b>Total</b>	<b>564</b>	<b>100.0</b>
<b>Year of Gonorrhea Reporting</b>		
2005	110	19.5
2006	130	23.1
2007	122	21.6
2008	101	17.9
2009	101	17.9
<b>Total</b>	<b>564</b>	<b>100.0</b>

- Most HIV positive individuals co-infected with gonorrhea were men (80.5%) and black (79.4%).
- More than two-thirds (70.4%) of gonorrhea and HIV co-infections occurred among individuals between 20 and 39 years of age.

Chronic Hepatitis B and HIV Co-Infection**Table 32. Chronic Hepatitis B/HIV Co-Infection by Selected Characteristics, District of Columbia, 2005-2009**

Hepatitis B and HIV Co-infections		
	N	%
<b>Sex</b>		
Male	341	74.9
Female	114	25.1
Unknown	<3	–
<b>Total</b>	<b>456</b>	<b>100.0</b>
<b>Race</b>		
White	42	9.2
Black	385	84.4
Hispanic	14	3.1
Other*	15	3.3
<b>Total</b>	<b>456</b>	<b>100.0</b>
<b>Age at HIV Diagnosis</b>		
13-19	16	3.5
20-29	109	23.9
30-39	159	34.9
40-49	119	26.1
50-59	46	10.1
≥60	7	1.5
<b>Total</b>	<b>456</b>	<b>100.0</b>
<b>Mode of Transmission</b>		
MSM	186	40.8
IDU	82	18.0
MSM/IDU	17	3.7
Heterosexual contact	112	24.5
Risk not identified	59	12.9
<b>Total</b>	<b>456</b>	<b>100.0</b>
<b>Year of Hepatitis B Report</b>		
2005	83	18.2
2006	120	26.3
2007	132	29.0
2008	58	12.7
2009	63	13.8
<b>Total</b>	<b>456</b>	<b>100.0</b>

- Three-quarters (74.9%) of chronic hepatitis B/HIV co-infections were men.
- The majority (84.4%) of chronic hepatitis B/HIV co-infections reported between 2005 and 2009 were black.
- Approximately two-thirds (61.0%) of chronic hepatitis B/HIV co-infections were among individuals between 30 and 49 years of age.
- The most commonly reported mode of transmission among chronic hepatitis B/HIV co-infections was MSM contact (40.8%), followed by heterosexual contact (24.5%).

Chronic Hepatitis C and HIV Co-Infection**Table 33. Chronic Hepatitis C/HIV Co-Infection by Selected Characteristics, District of Columbia, 2005-2009**

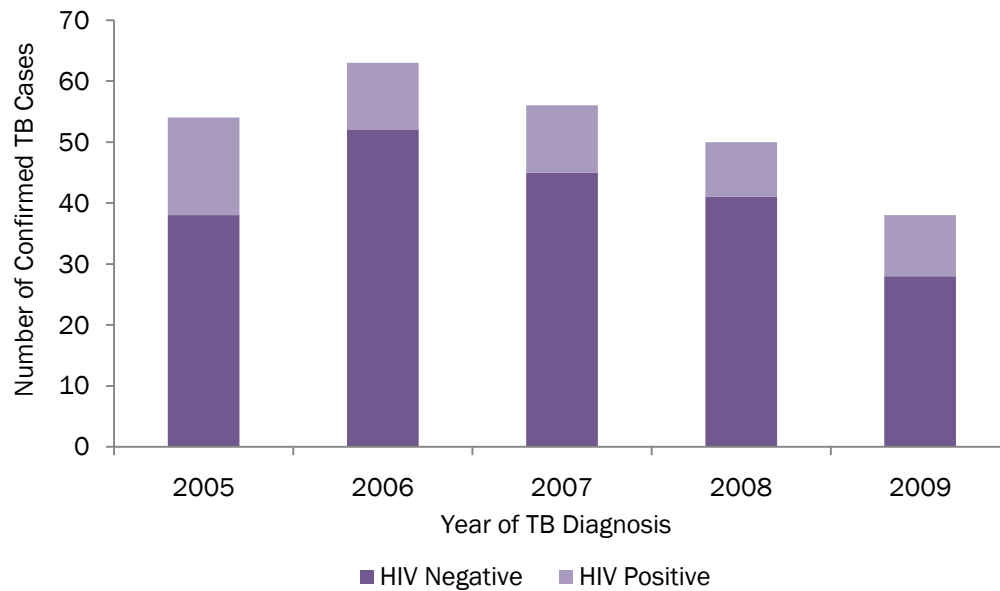
Hepatitis C and HIV Co-infection		
	N	%
<b>Sex</b>		
Male	1,040	68.9
Female	467	30.9
Unknown	<3	–
<b>Total</b>	<b>1,510</b>	<b>100.0</b>
<b>Race</b>		
White	77	5.1
Black	1,367	90.5
Hispanic	47	3.1
Other*	19	1.3
<b>Total</b>	<b>1,510</b>	<b>100.0</b>
<b>Age at HIV Diagnosis</b>		
13-19	10	0.7
20-29	152	10.1
30-39	385	25.5
40-49	629	41.6
50-59	287	19.0
≥60	47	3.1
<b>Total</b>	<b>1,510</b>	<b>100.0</b>
<b>Mode of Transmission</b>		
MSM	283	18.7
IDU	678	44.9
MSM/IDU	95	6.3
Heterosexual Contact	311	20.6
RNI	138	9.1
Other*	5	0.3
<b>Total</b>	<b>1,510</b>	<b>100.0</b>
<b>Year of Hepatitis C Report</b>		
2005	148	9.8
2006	271	17.9
2007	486	32.2
2008	341	22.6
2009	264	17.5
<b>Total</b>	<b>1,510</b>	<b>100.0</b>

- As with chronic hepatitis B/HIV co-infections, more than two-thirds (68.9%) of chronic hepatitis C/HIV co-infections were among men and the majority (90.5%) were black.
- Almost two-thirds (63.7%) of chronic hepatitis C/HIV co-infections were over the age of 40.
- The most commonly reported mode of transmission (44.9%) was injection drug use for chronic hepatitis C/HIV co-infections.

### Tuberculosis Co-Infection

The bar graph below represents the number of cases of confirmed tuberculosis that were also found to have HIV infection.

**Figure 38. Reported Cases of Tuberculosis Co-infected with HIV by Year, District of Columbia, 2005-2009**



- Overall, 27.9% of cases diagnosed with TB between 2005 and 2009 were also infected with HIV.
- In addition, the number of TB/HIV co-infections decreased by 37.5% (16 cases in 2005 to 10 cases in 2009).

## Section X. Geographic Distribution

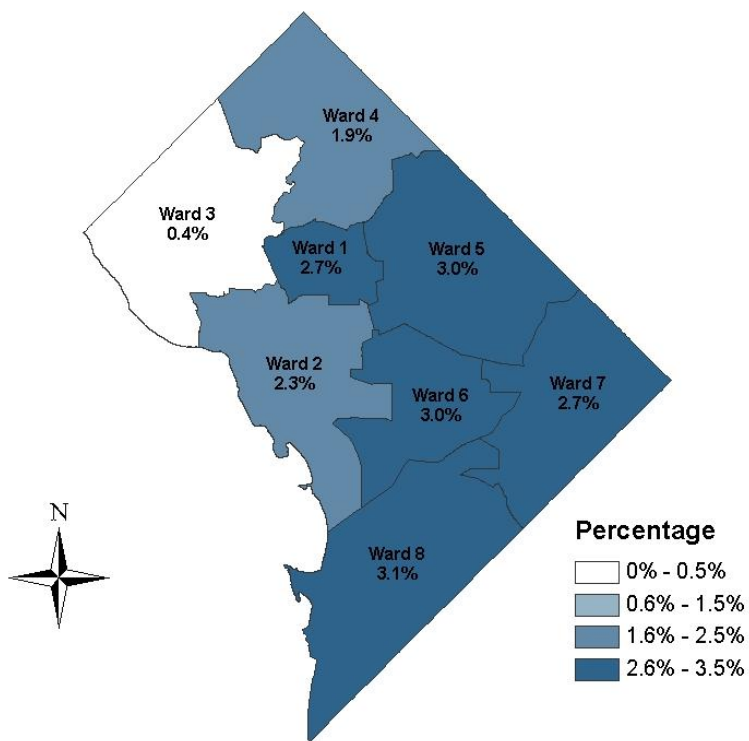
This section contains a portrait of the geographic distribution of HIV/AIDS, sexually transmitted diseases (STDs), hepatitis and tuberculosis cases in the District with maps and specific data points. The District is divided into eight geopolitical areas called “Wards.” Ward information is collected for all reported cases. For persons who were incarcerated or in temporary housing or lacking housing at the time of diagnosis, the ward of residence is not collected and is reported separately from the maps as “jail” or “homeless” cases. The availability of ward data varies by disease; however, where these data were not available, the cases were not included in the maps. When calculating rates by ward, the base population used is the total number of persons from the most recent census data, in 2000. It is also important to note that the ward of residence is not indicative of where a person was infected but represents where the person resided at the time of diagnosis. While these cases reported living in these wards at the time of diagnosis, they may no longer live in these wards as there is a large amount of movement both within and outside of the District.

### Summary

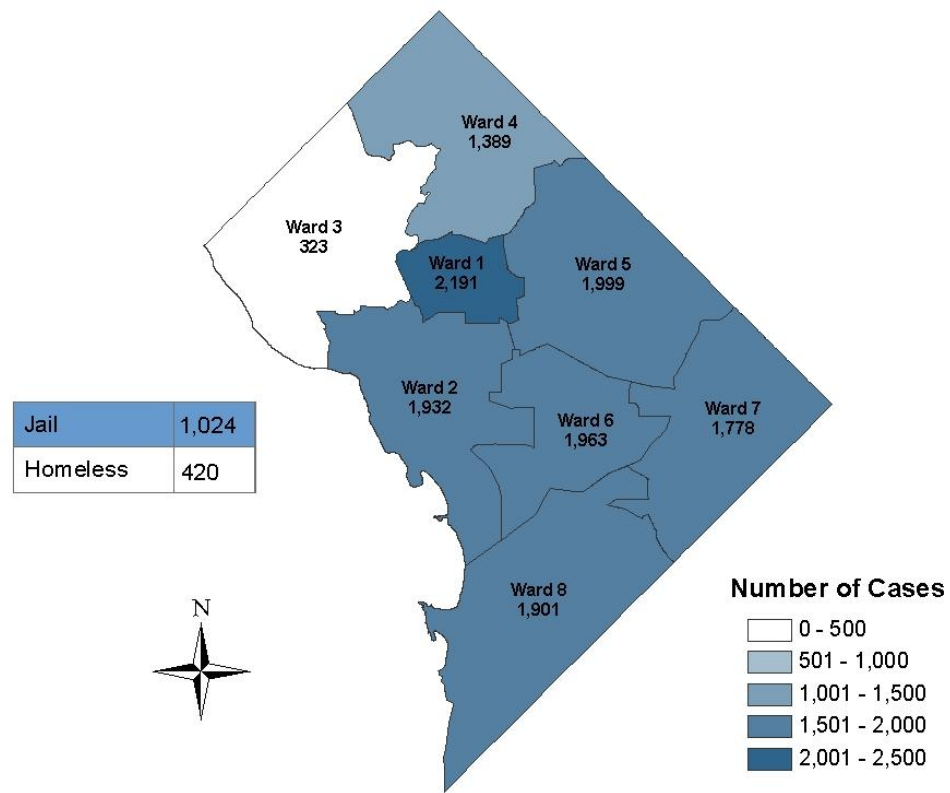
Similar to last year’s report, when the distribution of HIV/AIDS cases in the District was examined, the rates of persons living with HIV/AIDS at the end of 2009 were calculated as greater than 1% in nearly all wards. This indicates that the epidemic was severe in seven of the city’s eight wards. Wards 5, 6 and 8 had the highest rates of persons living with HIV/AIDS in the District, with rates of 3.0%, 3.0% and 3.1%, respectively. Ward 1 had the highest number of persons living with HIV/AIDS at the end of 2009.

The availability of ward data for hepatitis cases ranged from 71.0% to 80.4%. Ward 8 had the highest number chronic hepatitis B cases and the highest number of chronic hepatitis C cases. Rates of chlamydia and gonorrhea were highest in Ward 8 at 2,024.8 and 883.8 cases per 100,000 population, respectively. Unlike chlamydia and gonorrhea, primary and secondary syphilis primarily affected persons living in Wards 1 and 2. Between 2005 and 2009, there were 281 confirmed tuberculosis cases with Wards 1 and 4 having the highest number of cases.

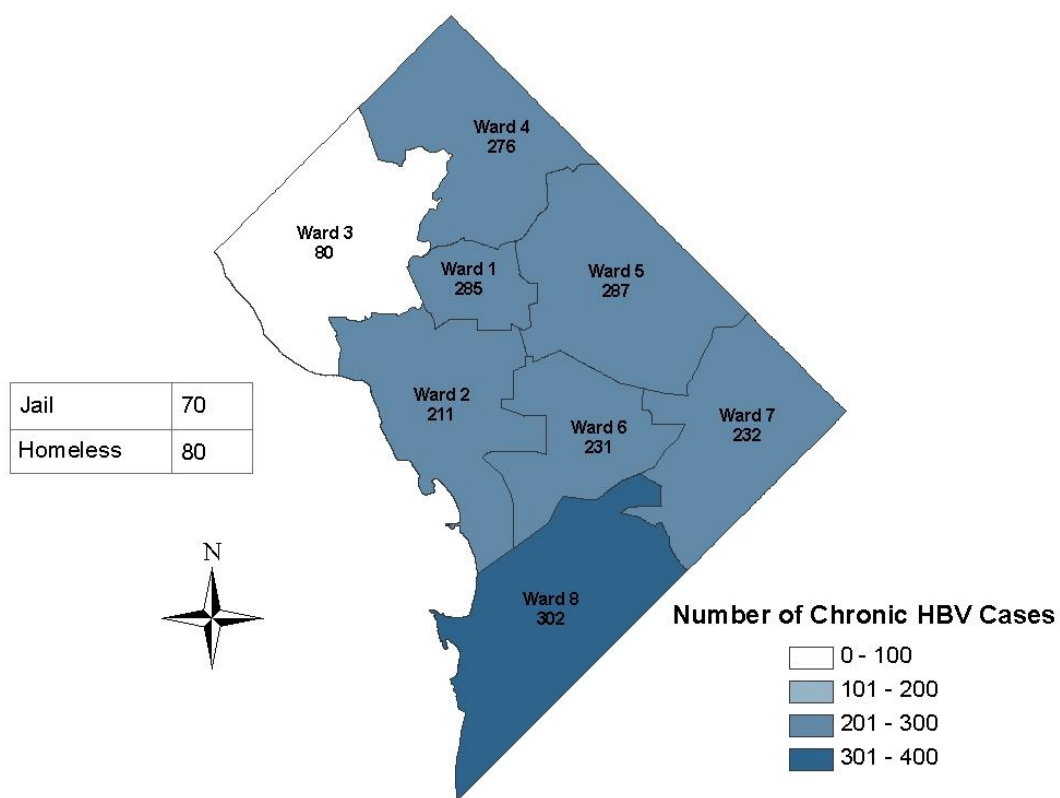


**Map 1. Proportion of Adults and Adolescents Living with HIV/AIDS by Ward, District of Columbia, 2009**

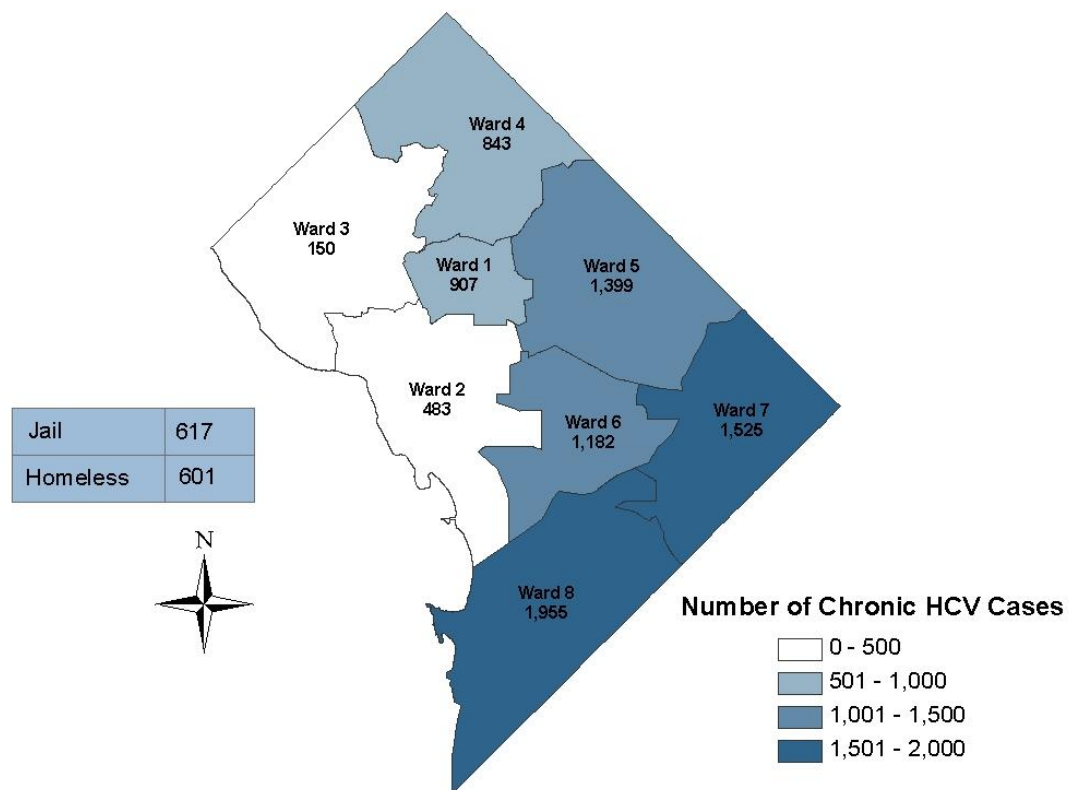
- Ward information was available for 89.2% of HIV/AIDS cases.
- At the end of 2009, the highest rate of persons living with HIV/AIDS was reported in Ward 8 (3.1%).
- At the end of 2009, the lowest rate of persons living with HIV/AIDS was reported in Ward 3 (0.4%).

**Map 2. Numbers of Adults and Adolescents Living with HIV/AIDS by Ward, District of Columbia, 2009**

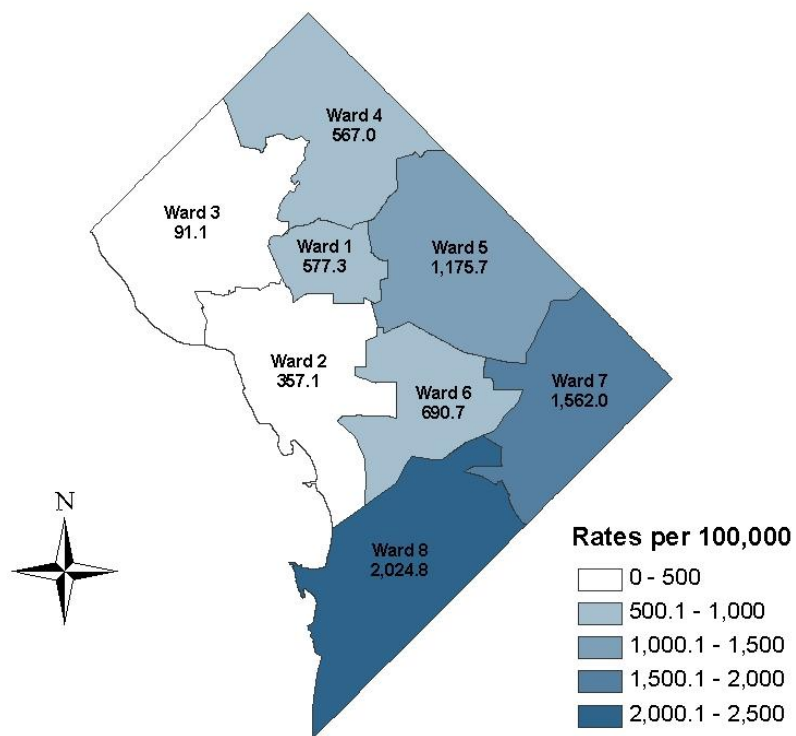
- At the end of 2009, the highest number of persons living with HIV/AIDS was reported in Ward 1 (n=2,191).
- At the end of 2009, the lowest number of persons living with HIV/AIDS was reported in Ward 3 (n=323).

**Map 3. Number of Reported Cases of Chronic Hepatitis B by Ward, District of Columbia 2005-2009**

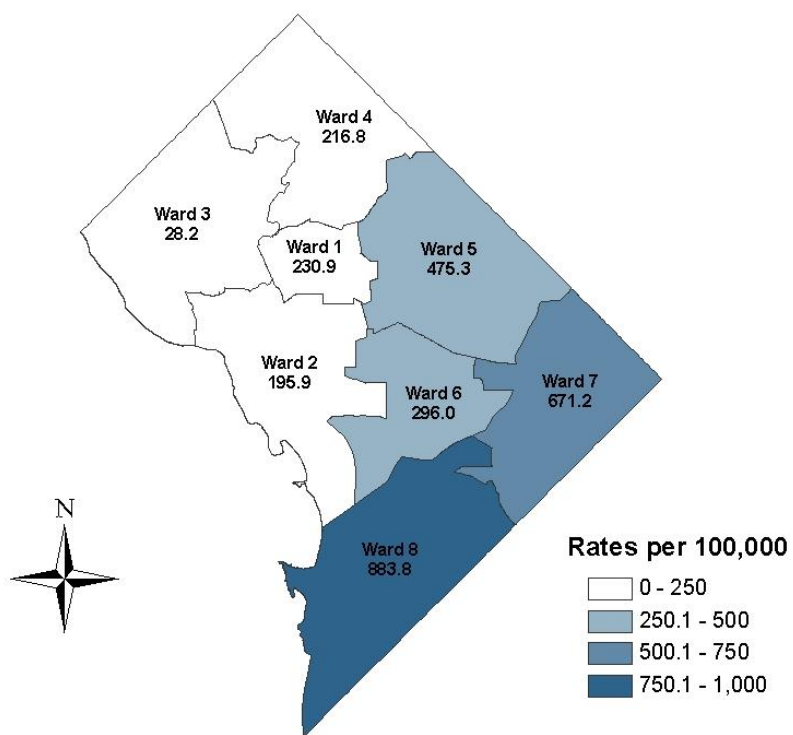
- Ward information was available for 71.0% of chronic hepatitis B cases.
- In 2009, Ward 8 had the highest number of chronic hepatitis B cases (n=302).
- In 2009, Ward 3 had the lowest number of chronic hepatitis B cases (n=80).

**Map 4. Number of Reported Cases of Chronic Hepatitis C by Ward, District of Columbia 2005-2009**

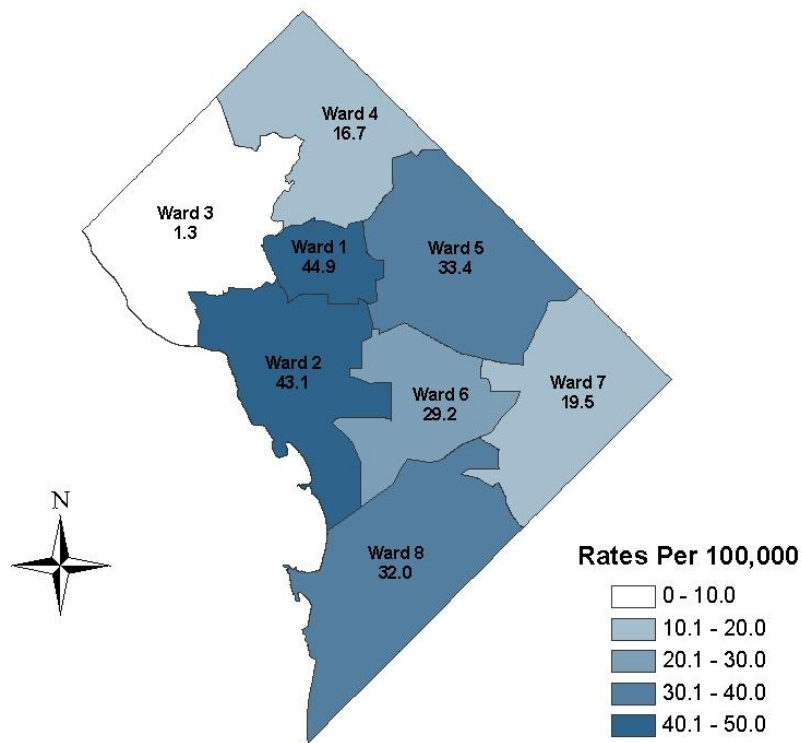
- Ward information was available for 80.4% of chronic hepatitis C cases.
- In 2009, Ward 8 had the highest number of chronic hepatitis C cases (n=1,955).
- In 2009, Ward 3 had the lowest number of chronic hepatitis C cases (n=150).

**Map 5. Chlamydia Rates per 100,000 Population by Ward, District of Columbia, 2009**

- Ward information was available for 78.4% of chlamydia cases.
- In 2009, the highest rate of chlamydia was reported in Ward 8 (2,024.8 cases per 100,000 population).
- In 2009, the lowest rate of chlamydia was reported in Ward 3 (91.1 cases per 100,000 population).

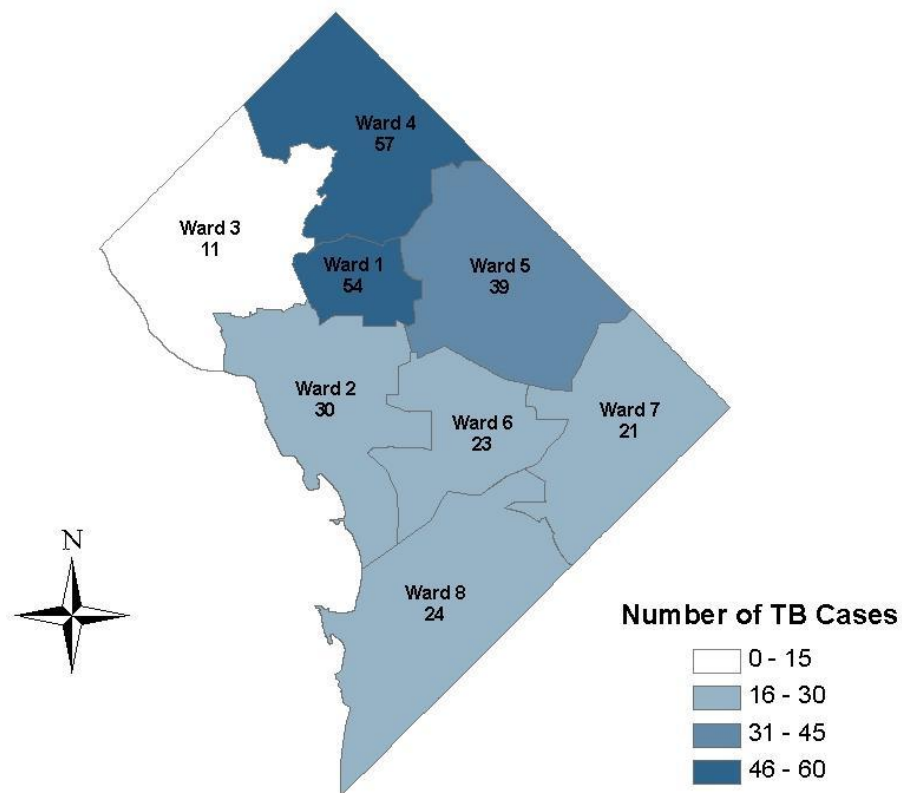
**Map 6. Gonorrhea Rate per 100,000 Population by Ward, District of Columbia, 2009**

- Ward information was available for 85.3% of gonorrhea cases.
- In 2009, the highest rate of gonorrhea was reported in Ward 8 (883.8 cases per 100,000 population).
- In 2009, the lowest rate of gonorrhea was reported in Ward 3 (28.2 cases per 100,000 population).

**Map 7. Primary & Secondary Syphilis Rates per 100,000 Population by Ward, District of Columbia, 2009**

- Ward information was available for 99.4% of primary and secondary syphilis cases.
- In 2009, the highest rates of primary and secondary syphilis were reported in Ward 1 (44.9 cases per 100,000 population) and Ward 2 (43.1 cases per 100,000 population).
- In 2009, the lowest rate of primary and secondary syphilis was reported in Ward 3 (1.3 cases per 100,000 population).



**Map 8. Number of Reported Cases of Tuberculosis by Ward, District of Columbia, 2005-2009**

- Ward information was available for 92.2% of tuberculosis cases.
- In 2009, Ward 4 had the highest number of tuberculosis cases (n=57).
- In 2009, Ward 3 had the lowest number of tuberculosis cases (n=11).

## Section XI. Definitions

### Definitions for HIV/AIDS

**Acquired Immunodeficiency Syndrome (AIDS):** A disease of the body's immune system caused by the human immunodeficiency virus (HIV). AIDS is characterized by the death of CD4 cells (an important part of the body's immune system), which leaves the body vulnerable to life-threatening conditions, including infections and cancers.

**Active Reporting:** State and local health department surveillance staff collect information by contacting health care practitioners, and reviewing medical records in hospitals, clinics, and doctor's offices.

**Adjustments:** Statistical calculations that allow the comparison of different groups (when the difference may affect what you are studying) as though they are alike. Differences in populations or subgroups make it difficult to make comparisons; adjustments remove the influence of a specific factor (for example, age, sex, race, or disease status) from the analysis.

**Aggregated data:** Information, usually summary statistics that may be compiled from personal information, but that is grouped or presented together to prevent the identification of individuals.

**AIDS-defining illness:** Any of a list of illnesses included that, when occurring in an HIV -infected person, leads to a diagnosis of AIDS, the most serious stage of HIV infection. AIDS is also diagnosed if an HIV -infected person has a CD4 count below 200 cells/mm<sup>3</sup>, whether or not that person has an AIDS defining condition. The United States Centers for Disease Control and Prevention (CDC) published a list of 26 AIDS defining conditions in 1993, including candidiasis, cytomegalovirus disease, Kaposi's sarcoma, mycobacterium avium complex, pneumocystis carinii pneumonia, recurrent pneumonia, progressive multifocal leukoencephalopathy, pulmonary tuberculosis, invasive cervical cancer, and wasting syndrome.

**Analysis data, datasets, or database:** A dataset created by removing personal data (for example, names, addresses, ZIP codes, and telephone numbers) so the record or records cannot be linked to an individual, but still allows the remaining data to be analyzed.

**Antiretroviral therapy:** Treatment with drugs that inhibit the ability of retroviruses (such as HIV) to multiply in the body. The antiretroviral therapy recommended for HIV infection is referred to as highly active antiretroviral therapy (HAART), which uses a combination of medications to attack HIV at different points in its life cycle.

**Average:** The sum of a set of data divided by the number of cases.

**Case:** In epidemiology, a countable instance in the population or study group of a particular disease, health disorder, or condition under investigation, such as HIV infection (for example, an HIV case) or AIDS (for example, an AIDS case). A case may be an individual with the particular disease.

**CD4 Cell:** Also known as helper T cell or CD4 lymphocyte. A type of infection-fighting white blood cell that carries the CD4 protein receptor on its surface. CD4 cells coordinate the immune response, signaling other cells in the immune system to perform their special functions. The number of CD4 cells in a sample of blood is an indicator of the health of the immune system. HIV infects and kills CD4 cells, leading to a weakened immune system.

**CD4 Cell Count:** A measurement of the number of CD4 cells in a sample of blood. The CD4 count is one of the most useful indicators of the health of the immune system and the progression of HIV/AIDS. A CD4 cell count is used by health care providers to determine when to begin, interrupt, or halt anti-HIV therapy; when to give preventative treatment from opportunistic infections; and to measure response to treatment. A normal CD4 cell count is

between 500 and 1,400 cells/mm<sup>3</sup>, but an individual's CD4 count can vary. In HIV -infected individuals, a CD4 count at or below 200 cells/mm<sup>3</sup> is considered an AIDS-defining condition.

**Census:** The enumeration of an entire population, usually with details being recorded on residence, age, sex, occupation, ethnic group, marital status, birth history, and relationship to head of household.

**Centers for Disease Control and Prevention (CDC):** An agency of the United States Department of Health and Human Services that is charged with protecting the health and safety of citizens at home and abroad.

**Code-based Reporting:** HIV case reporting under the code-based era occurred from January 2001 through November 16, 2006 in the District of Columbia. The unique identifier code consists of a combination of the letters and number of letters in the last name, social security number, sex, and date of birth.

**Core Surveillance:** The primary source of population-based data on persons living with HIV/AIDS. Includes the number of annual cases of HIV diagnosed; the prevalence of persons living with HIV infection; and HIV-related (including AIDS) morbidity and mortality in adults, adolescents, and children; perinatal exposure to HIV and HIV infection; access to care in HIV-infected populations; and changes in trends of HIV transmission.

**Cumulative cases:** The total number of cases of a disease reported or diagnosed during a specified time. Cumulative cases can include cases in people who have died.

**Cumulative incidence rate:** The total number of persons who experience the onset of a disease during a specified period of time among all people at risk for the disease. A cumulative incidence rate is calculated by dividing cumulative incidence for a specified period by the population in which cases occurred during that period. A multiplier is used to convert the resulting fraction to a number over a common denominator (often 100,000).

**Data cleaning:** A standard practice commonly employed to improve the usability, quality, integrity, completeness, and accuracy of information collected in a database system.

**Demographic information:** The "person" characteristics – age, sex, race, and occupation – of descriptive epidemiology used to characterize the populations at risk.

**Denominator:** The lower portion of a fraction used to calculate a rate or ratio. In a rate, the denominator is usually the population (or population experience, as in person-years, etc.) at risk.

**Epidemic:** A disease that has spread rapidly through a segment of the human population in a given geographic area.

**Epidemiologic follow-up:** The investigative process for obtaining additional information on a reported HIV/AIDS case.

**Epidemiologic profile:** See HIV/AIDS epidemiologic profile.

**Epidemiology:** The branch of medical science that studies the occurrence, distribution, and control of disease, injury, or health in human populations, and the application of this study to the prevention and control of health problems.

**Estimate:** In situations in which precise data are not available, an estimate may be made on the basis of available data and an understanding of how the data may be generalized to larger populations. In some instances, national or state data may be statistically adjusted to estimate local conditions. Good estimates are accompanied by statistical estimates of error (a confidence interval), which describe the limitations of the estimate.

**Exposure:** Contact with an infectious agent or other substance, or possession of a characteristic that is suspected to influence the risk of developing a particular disease.

**Graph:** A way to show quantitative data visually, using a system of coordinates.

**Hemophilia:** An inherited disorder of the blood clotting process that causes excessive and sometimes spontaneous bleeding; requires numerous transfusions of clotting factors, some of which, if required precautions have not been taken, may be contaminated by the HIV virus.

**Highly Active Antiretroviral Therapy (HAART):** The name given to treatment regimens that aggressively suppress HIV replication and progression of HIV disease. The usual HAART regimen combines three or more anti-HIV drugs.

**HIV:** See “Human Immunodeficiency Virus”.

**HIV/AIDS epidemiologic profile:** A document that describes the HIV/AIDS epidemic in various populations in defined geographic areas, and identifies characteristics of the general population, HIV -infected populations, and non-infected (and untested) persons whose behavior places them at risk for HIV infection. It consists of information gathered to describe the effect of HIV/AIDS on an area in terms of socio-demographic, geographic, behavioral, and clinical characteristics. The epidemiologic profile serves as the scientific basis from which HIV prevention and care needs are identified and prioritized for a jurisdiction.

**HIV/AIDS surveillance:** The systematic data collection, analysis, interpretation, dissemination, and evaluation of population-based information about persons with a diagnosis of HIV infection and persons with a diagnosis of AIDS.

**HIV diagnosis date:** The earliest date at which HIV infection was diagnosed from either a positive confirmatory laboratory test result or, in the absence of laboratory documentation, a documented physician diagnosis date.

**HIV disease:** Any signs, symptoms, or other adverse health effects of HIV.

**HIV positive:** A test result that indicates that antibody to the virus is found in the blood. This test does not predict whether the person will become ill with AIDS; however, it may indicate that one is contagious and capable of passing the virus on to others.

**HIV/AIDS surveillance:** The systematic collection, analysis, interpretation, dissemination, and evaluation of population-based information about persons with a diagnosis of HIV infection and persons with a diagnosis of AIDS. HIV/AIDS surveillance programs monitor the HIV/AIDS epidemic, and provide factual information that is critical to planning, setting priorities for, and funding HIV prevention, care, and treatment.

**Human Immunodeficiency Virus (HIV):** The virus that causes the Acquired Immunodeficiency Syndrome (AIDS). HIV is in the retrovirus family, and two types have been identified: HIV-1 and HIV-2. HIV-1 is responsible for most HIV infections throughout the world, while HIV-2 is found primarily in West Africa. Individuals with HIV in their system are referred to as HIV infected.

**Incidence:** The number of new cases of a disease in a defined population during a specific period of time, often one year, which can be used to measure disease frequency. It is important to understand the difference between HIV incidence and reported HIV diagnoses. The number of new HIV diagnoses does not necessarily reflect trends in HIV incidence (that is, new infections) because some individuals will have been infected recently while others will have

been infected sometime in the past. Further, because the results of anonymous tests are not reported, not all diagnoses of HIV infection are included in HIV/AIDS surveillance data. Therefore, surveillance data do not represent incident cases.

**Incidence Rate:** The frequency of new cases of a disease that occur per unit of population during a defined period of time – such as the rate of new cases per 100,000 population in the District of Columbia.

**Incidence Surveillance:** Provides estimates of the number of newly-acquired HIV infections. Includes the collection and testing of diagnostic blood specimens from newly reported HIV infections; calculation of population-based estimates of HIV incidence using HIV testing information; and monitoring HIV strains for resistance to anti-retroviral drugs.

**Infection:** The establishment of an infectious micro-organism, such as bacteria, fungi, protozoa, or viruses, in the body. The term is also used to refer to disease caused by an infectious micro-organism.

**Injection drug users:** Individuals who have ever used needles to inject illicit drugs.

**Interpretation:** The explanation of the meaning of the data. For example, interpreting a trend in the number of HIV cases diagnosed during a five-year period enables a planning group to assess whether the number of cases has increased or decreased.

**Intrapartum:** The time period spanning labor and delivery.

**Mode of transmission:** The means by which HIV is transmitted from one individual to another. It describes how an individual may have been exposed to HIV, such as injecting drug use, male-to-male sexual contact, or heterosexual sexual contact.

**Mortality:** The total number of persons who have died of a particular disease. Usually expressed as a rate, mortality (total number of deaths over the total population) measures the effect of the disease on the population as a whole.

**Mother-to-Child Transmission:** The passage of HIV from an HIV -infected mother to her infant. The infant may become infected while in the womb, during labor and delivery, or through breastfeeding.

**Name-based Reporting:** The District of Columbia transitioned from code-based to name-based HIV reporting in November 2006. Confidential name-based reporting is done through laboratory reports; however, cases are also identified through reporters such as medical providers, hospitals, clinics and community based organizations that provide HIV testing and treatment.

**Neonatal:** The time period from birth through the first four weeks after birth.

**Numerator:** The upper portion of a fraction.

**Passive reporting:** Health care practitioners, hospitals, clinics, and laboratories report cases of HIV/AIDS to state and local health departments.

**Pediatric HIV/AIDS:** The medical specialty concerned with the development, care, and treatment of children living with living HIV/AIDS from birth through adolescence.

**Percentage:** A proportion of the whole, expressed as parts per 100.

**Perinatal:** The time period spanning shortly before and after birth.

**Perinatal transmission:** The passage of HIV from an HIV -infected mother to her infant. The infant may become infected while in the womb, during labor and delivery, or through breastfeeding.

**Population:** The total number of inhabitants of a given area or country. In sampling, the population may refer to the units from which the sample is drawn, not necessarily the total population of people.

**Prevalence:** The total number of people in a population affected with a particular disease or condition at a given time. Prevalence can be thought of as a snapshot of all existing cases of a disease or condition at a specified time.

**Prevalence rate:** The total or cumulative number of cases of a disease per unit of population during a defined period of time, such as the rate of AIDS cases per 100,000 population diagnosed through December 31, 2006, in the District of Columbia or the EMA.

**Proportion:** A portion of the complete population or data set, usually expressed as a fraction or percentage of the population or data set.

**Provider:** Any source of HIV/AIDS surveillance information, such as physician, nurse, dentist, pharmacist, or other professional provider of health care or a hospital, health maintenance organization, pharmacy, laboratory, STD clinic, TB clinic, or other health care facility that forwards data into the surveillance system.

**Public health uses of surveillance data:** The principal public health uses of HIV/AIDS surveillance data at state and federal levels is for epidemiologic monitoring of trends in disease incidence and outcomes. This includes collection of data and evaluation of the collection system, as well as the reporting of aggregate trends in incidence and prevalence by demographic, geographic, and behavioral risk characteristics to assist the formulation of public health policy and direct intervention programs.

**Range:** The difference between the largest and smallest values in a data set.

**Rate:** A measure of the frequency of an event or a disease compared with the number or persons at risk for the event or disease.

**Ratio:** A way of showing the relative size of two numbers. The first number is divided by the second number to derive the ratio. The ratio may be expressed as fraction; for example,  $2/3$ , or the two numbers may be separated by a colon; for example, 2:3.

**Reliability:** Refers to the consistency and dependability of a data-collection instrument or measure. For example, if you repeat a blood test three (3) times on the same specimen and the results are the same each time, the test is said to be reliable.

**Reporting delay:** The time between a diagnosis of HIV infection or AIDS and the receipt of the report by the health department.

**Risk:** The probability that an event will occur; for example, that an individual will become ill or die within a stated period of time or age.

**Risk factor:** An aspect of personal behavior or lifestyle, an environmental exposure, or an inborn or inherited characteristic that is associated with an increased occurrence of disease or other health-related event or condition.

**Risk Not Identified (RNI):** Cases in which epidemiologic follow-up has been conducted and sources of data have been reviewed, which may include an interview with the provider, but no mode of exposure has been identified. Any case that continues to have no reported risk for twelve (12) or more months after the report date is considered RNI.

**Sex:** The biological state of maleness or femaleness determined at birth, as opposed to “sex,” which is a psychosocial construct.

**Sexually Transmitted Disease (STD):** Any infection spread by the transmission of organisms from person to person during sexual contact.

**Sociodemographic factors:** Background information about a population of interest; for example, age, sex, race, educational status, income, and geographic location. These factors are often thought of as explanatory because they help to make sense of the results of analyses.

**Socioeconomic status:** A measure of social and economic factors that helps to describe a person’s standing in society (for example, income level, relationship to the national poverty line, educational achievement, neighborhood of residence, home ownership).

**Statistics:** The collection, analysis, interpretation, and presentation of quantitative (numerical) data.

**STD:** See sexually transmitted disease.

**Stratification:** A technique for dividing data into homogenous groups (strata).

**Surveillance (public health surveillance):** The continuous, systematic collection, analysis, interpretation, dissemination, and evaluation of population-based health information for purposes of disease prevention and control.

**Surveillance data:** Statistics generated from disease surveillance in either paper or electronic format.

**Surveillance information:** Details collected on an individual or individuals for completing routine or special surveillance investigations. Examples of HIV/AIDS surveillance information are the HIV/AIDS report forms, ancillary notes about risk investigations and related questionnaires, notes about suspect cases, laboratory reports, line lists, discharge summaries, death certificates, and drug data stores.

**Table:** A set of data arranged in rows and columns.

**Trend:** A long-term movement or change in frequency, usually upward or downward; may be presented as a line graph.

**Variable:** Any characteristic or attribute that can be measured.

**Virus:** A microscopic organism that requires a host cell to make more copies of itself. Examples of human diseases caused by virus infections are AIDS, measles, mumps, polio, influenza, and the common cold.

**Vital statistics:** Systematically tabulated information about births, marriages, divorces, and deaths, based on registration of these events.

**Year of diagnosis:** The year in which a diagnosis of HIV infection or AIDS was made.



**Year of report:** The year in which a person with a diagnosis of HIV infection or AIDS was reported to the health department.

#### Definitions for Opportunistic Infections

**Cancer:** Burkitt's Lymphoma, Cervical cancer, Immunoblastic lymphoma, Kaposi's sarcoma, Primary lymphoma of the brain

**Fungal:** Candidiasis of the esophagus, Candidiasis of the lungs, Coccidioidomycosis, Cryptococcosis, Histoplasmosis

**Low CD4 only<sup>†</sup>:** AIDS diagnosis based on CD4 count below 200 cells/ul

**Other diagnoses:** Dementia, Progressive multifocal leukoencephalitis

**Other infections:** Recurrent pneumonia, *Salmonella septicemia*

**Parasitic:** Cryptosporidiosis, Isosporiasis, Toxoplasmosis of brain

**PCP:** *Pneumocystis carinii pneumonia*

**TB/Mycobacteria:** Atypical mycobacteria diagnosed, *Mycobacterium avium* complex, *Mycobacterium tuberculosis*, Pulmonary tuberculosis

**Viral:** Chronic mucocutaneous herpes, Cytomegalovirus disease, Cytomegalovirus retinitis

**Wasting:** Wasting syndrome

<sup>†</sup>This is an AIDS defining diagnosis (not opportunistic infection)

### Definitions for Hepatitis

**Hepatitis** - means inflammation of the liver. Diseases, medications and toxins, as well as bacterial and viral infections are among the causes of hepatitis. The word 'hepatitis' is also used to describe a family of viral infections. The most common types of viral hepatitis seen in the US are hepatitis A, B and C and are described below.

**Hepatitis A** - an acute liver disease caused by the hepatitis A virus (HAV), lasting from a few weeks to several months. It does not lead to chronic infection.

**Hepatitis B** - a liver disease caused by the hepatitis B virus (HBV). It ranges in severity from a mild illness, lasting a few weeks (acute), to a serious long-term (chronic) illness that can lead to liver disease or liver cancer.

**Hepatitis C** - a liver disease caused by the hepatitis C virus (HCV). HCV infection sometimes results in an acute illness, but most often becomes a chronic condition that can lead to cirrhosis of the liver and liver cancer.

**Cirrhosis** - the replacement of liver tissue by fibrosis, scar tissue and regenerative nodules. Cirrhosis is most commonly caused by alcoholism, hepatitis B and C, and fatty liver disease but has many other possible causes. Some cases are of unknown causes.

**Fibrosis** - the presence of excessive collagen in an organ or tissue.

**Neoplasm** - an abnormal mass of tissue due to an abnormal growth of cells.

**Acute viral hepatitis** - hepatitis infection lasting less than six months, i.e. Hepatitis A.

**Chronic hepatitis** - hepatitis infection usually lasting longer than six months, i.e. Hepatitis B or C.

**Liver function tests (LFTs)** - tests that help detect, evaluate and monitor liver disease or damage. LFTs generally refer to a group of blood tests that measure certain enzymes or proteins in your blood. Higher or lower than normal levels can indicate liver problems. Some common liver function tests include alanine transaminase (ALT), aspartate transaminase (AST), albumin, total protein, and bilirubin.

**Alanine transaminase (ALT)** - an enzyme found mainly in liver cells, ALT helps your body metabolize protein. Normally, ALT levels in the blood are low. When the liver is damaged, ALT is released in the bloodstream and levels increase.

**Aspartate transaminase (AST)** - the enzyme AST plays a role in the metabolism of alanine, an amino acid. AST is found in high concentrations in liver cells. An increase in AST levels may indicate liver damage or disease.

**Albumin and total protein** - levels of albumin — a protein made by the liver — and total protein indicate how well your liver is making proteins that your body needs to fight infections and perform other functions. Lower than normal levels may indicate liver damage or disease.

**Bilirubin** - bilirubin results from the breakdown of red blood cells. Normally, bilirubin passes through the liver and is excreted in your stool. Elevated levels of bilirubin, or jaundice, may indicate liver damage or disease.

### Definitions for Sexually Transmitted Diseases

**Chlamydia** - is a common sexually transmitted disease (STD) caused by the bacterium, chlamydia trachomatis, which can damage a woman's reproductive organs.

**Cervical swab** - The specimen collection method for C. trachomatis and N. gonorrhoeae in women for NAATs.

**Gonorrhea** - is a sexually transmitted disease caused by Neisseria gonorrhoeae, a bacterium that can grow and multiply easily in the warm, moist areas of the reproductive tract, including the cervix, uterus, and fallopian tubes in women, and in the urethra in both women and men. The bacterium can also grow in the mouth, throat, eyes, and anus.

**Syphilis** - is a sexually transmitted disease caused by the bacterium Treponema pallidum.

**Primary syphilis** - The primary stage of syphilis is usually marked by the appearance of a single sore (called a chancre), but there may be multiple sores. The time between infection with syphilis and the start of the first symptom can range from 10 to 90 days. The chancre appears at the spot where syphilis entered the body. The chancre lasts 3 to 6 weeks, and it heals without treatment. However, if adequate treatment is not administered, the infection progresses to the secondary stage.

**Secondary syphilis** - Skin rash and mucous membrane lesions characterize the secondary stage. This stage typically starts with the development of a rash on one or more areas of the body. The rash usually does not cause itching. Rashes associated with secondary syphilis can appear as the chancre is healing or several weeks after the chancre has healed. The signs and symptoms of secondary syphilis will resolve with or without treatment, but without treatment, the infection will progress to the latent and possibly late stages of disease.

**Latent syphilis** - The latent (hidden) stage of syphilis begins when primary and secondary symptoms disappear. Without treatment, the infected person will continue to have syphilis even though there are no signs or symptoms; infection remains in the body. This latent stage can last for years. Signs and symptoms of the late stage of syphilis include difficulty coordinating muscle movements, paralysis, numbness, gradual blindness, and dementia. This damage may be serious enough to cause death.

**Nucleic Acid Amplification Tests (NAATs)** - a laboratory method traditionally used to confirm chlamydia trachomatis and Neisseria gonorrhoeae, it can achieve greater sensitivity than traditional culture methods by exponentially replicating the nucleic acid of these organisms.

**Urethral swab** - The specimen collection method for C. trachomatis and N. gonorrhoeae in men for NAATs.

**Infertility Prevention Project** - CDC, in collaboration with the Office of Population Affairs (OPA) of the Department of Health and Human Services (HHS), supports a national Infertility Prevention Program (IPP) that funds chlamydia screening and treatment services for low-income, sexually active women attending family planning, STD, and other women's healthcare clinics. IPP has been active in monitoring and reporting chlamydia incidence in women in the United States since 1988.

**Rapid Plasma Reagin (RPR)** - is a screening test for syphilis. It looks for antibodies that are present in the blood of people who have the disease.

### Definitions for Tuberculosis

**Active TB disease** - an illness in which TB bacteria are multiplying and attacking a part of the body, usually the lungs. The symptoms of active TB disease include weakness, weight loss, fever, no appetite, chills, and sweating at night. Other symptoms of active TB disease depend on where in the body the bacteria are growing. If active TB disease is in the lungs (pulmonary TB), the symptoms may include a bad cough, pain in the chest, and coughing up blood. A person with active TB disease may be infectious and spread TB bacteria to others.

**Culture** - a test to see whether there are TB bacteria in your phlegm or other body fluids. This test can take 2 to 4 weeks in most laboratories.

**Directly Observed Therapy (DOT)** - Standard of care recommended by the Centers for Disease Control (CDC) to treat tuberculosis. In directly observed therapy, a trained health care worker observes the patient taking his/her TB medication.

**Extensively drug-resistant TB (XDR TB)** - XDR TB is a rare type of TB disease that is resistant to nearly all medicines used to treat TB.

**Extrapulmonary TB** - active TB disease in any part of the body other than the lungs (for example, the kidney, spine, brain, or lymph nodes).

**Isoniazid (INH)** - a medicine used to prevent active TB disease in people who have latent TB infection. INH is also one of the four medicines often used to treat active TB disease.

**Latent TB infection** - a condition in which TB bacteria are alive but inactive in the body. People with latent TB infection have no symptoms, don't feel sick, can't spread TB to others, and usually have a positive skin test reaction. But they may develop active TB disease if they do not receive treatment for latent TB infection.

**Multidrug-resistant TB (MDR TB)** - active TB disease caused by bacteria resistant to two or more of the most important medicines: INH and RIF.

**Mycobacterium tuberculosis** - bacteria that cause latent TB infection and active TB disease.

**Pulmonary TB** - active TB disease that occurs in the lungs, usually producing a cough that lasts 3 weeks or longer. Most active TB disease is pulmonary.

**Rifampin (RIF)** - one of the four medicines often used to treat active TB disease. It is considered a first-line drug.

**Smear** - a test to see whether there are TB bacteria in your phlegm. To do this test, lab workers smear the phlegm on a glass slide, stain the slide with a special stain, and look for any TB bacteria on the slide. This test usually takes 1 day to get the results.



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